

Contents

HD/SD Component Video with stereo audio, or S-Video and Composite Video along with stereo audio, or three channels of Composite Video with stereo audio

RGB and Audio	
7220 RGB Series	3620A Composite Video Series
7250 RGB Series	Four uncompressed video channels and eight independent audio channels all transmitted digitally over a single fiber
RGB, Audio and Data	7130 Wideband Video Series
7240 RGB Series	channels, digitally transmitted over one fiber Video Only
support, all over a single fiber optic core DVI and Audio	3134 Video Multiplexer Series
7510 DVI Series	7100 Wideband Video Series
3G/HD/SD-SDI - AES/EBU Audio	Beamer-V Composite Video
3360 3G/HD/SD-SDI & 4 Pairs of AES/EBU Digital Audio Series	Data Only
Broadcast quality 3G/HD/SD-SDI & AES/EBU Digital Audio transmission over one single mode or multimode fiber with full SMPTE compliance.	5002: RS-232 Micro Transceiver
3350 3G/HD/SD-SDI Series	and drop-and-repeat operation 5012/5018A Universal Data Transceivers
3353 3G/HD/SD-SDI to HDMI	5100 Gigabit Ethernet Transceiver
3355 3G/HD/SD-SDI to DVI	Optical Matrix Switchers
one single mode or multimode fiber with full SMPTE compliance to DVI baseband output.	Fiberlink Matrix
3357 3G/HD/SD-SDI to VGA or HD Component 34 Broadcast quality 3G/HD/SD-SDI Transmission over	ODAs, Splitters and WDMs
one single mode or multimode fiber with full SMPTE compliance to VGA or HD Component baseband output.	8100 Optical Distribution Series
Video, Audio and Two Way Data	Twelve output optical D.A. works with one-way Fiberlink systems, providing infinite signal extension and distribution options
Flex System	8000 Optical Distribution Series
Video and Two Way Data	8000 & 8100 Optical Distribution Series
3334 Video Multiplexer Series with Two-Way Data 42 10 Channel Composite Video Multiplexer with	Loss budgets and transmission distances
bi-directional data over one single mode or multimode fiber	6500 Optical Splitter Series
3800 Composite Video Series	optic transmitter to multiple receiver units by "splitting" optical power across outputs
Video and Audio	6400 Coarse Wave Division Multiplexer Series 90 Complex wave division multiplexers (CWDM) allow 4, 8 or 16 fiber optic links to operate at different wavelengths

6400 WDM Series	Deuce® HD
Audio Only	Deuce ® SDQ
4320 Audio Series	quality performance at a very affordable price Splitters & Switches
transmitted over one fiber with optional redundancy	 Quadswitch™ for VGA
4160 Audio Series	High-performance 4x1 active switch with fully buffered inputs and output and advanced sync processing
4040 Audio Series	Splitters for VGA
Specialty Data	Splitter for Composite Video
XC/RC-1000A TTL	formats
Transmits eight independent contact closure or TTL signals over a single fiber	Splitters for S-Video
XRD-8050 CALTRANS/NEMA	Fully-buffered two and six output distribution amplifiers support S-Video signals in NTSC and PAL formats
Fiber optic data transmission for CALTRANS 170 or 179 series and NEMA traffic signal controller applications	Splitters for RGB
	TwinSplit® E.D
XA/RA-1900A, XR-1900, XA-1903	"Extended Distance" VGA splitter distributes two buffered outputs to distances of up to 700 feet
and-repeat signal distribution	Cable Assembly/Termination
Test Equipment	6202 Fiber Optic Termination Kit
Optical Testing Devices	Easily terminates fiber cable with no grinding, polishing, glues or epoxies
convenient, on-site testing of fiber networks during construction and maintenance procedures	Fiber Cables and Connectors
·	Cables and connectors are available for use with any Fiberlink® products
Rackmounts	Video Rackmounts and Cables
MCR-1000A: Rackmountable Card Cage 118 3 RU high enclosure with positions for ten earlier generation Fiberlink units.	Rackmount kits and cables are available for use with all CSI video products. Cables may be ordered raw or preterminated.
6000A Rackmountable Card Cage	Power Supplies
of Fiberlink card modules. Power supply and alarm sensing module available.	PDPS-1: Universal Power Supply
Scan Converters	· ·
Scan Do® SD	PDPS-2: Universal Power Supply
Scan Do® HD	
Video Scalers	
Deuce®	

user-controlled, six-setting motion compensation feature

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Digitally transmits high-resolution RGB (up to WXGA) and stereo audio over one single mode or multimode fiber optic core



Supports VGA, SVGA, XGA and WXGA (640 x 480 up to 1366 x 768)

hubs, distance learning, surgical and medical imaging

Supports HDTV resolutions of 480p, 720p and 1080i (RGBHV format only)

Uses all digital processing with no compression for crystal clear signals and no color pixel skewing

Requires no adjustments, equalization or de-skewing during installation

Transmits signals over one single mode or multimode fiber optic core at 1310 nm wavelength

Low audio/video skew, <300 uSec

Use with Fiberlink 8000 and 8100 Series Optical DAs for complex point-to-multipoint distribution

RoHS Compliant

7220/7221

Complete kit available for a pointto-point "ready to install" solution. Includes transmitter, receiver, power supplies, 250 meters of fiber and various audio and VGA cables. Box and card units available. Card versions fill one slot in 6000A card cage.

7222/7224/7226

4, 8 or 12 optical output models for point-to-multipoint distribution

Compatible with all 7220 Series receivers

1 RU case with internal power supply

7223/7225/7227

Compatible with all 7220 Series transmitters

Models support optical looping for daisy-chain distribution

Models support up to 4 baseband video and stereo audio outputs

Available in box version only. Power supply sold separately

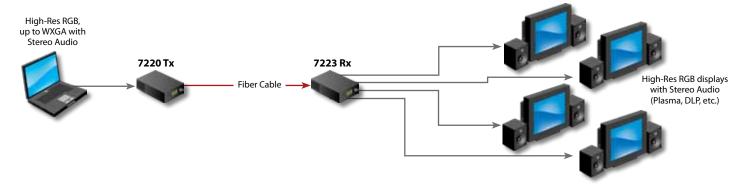
7220 Series	(all models) - I	Digital
Signal	Channels	Direction
RGB	1	→
Audio	2	\longrightarrow
Optical Outp	outs	
Model	Standard	Loop-Thru
7220	1	0
7222	4	0
7224	8	0
7226	12	0
7225, 7227	0	1
7221, 7223	0	0
Baseband Outputs		
Model	RGB	Audio
7221, 7225	1	2
7223, 7227	4	8
7222 ,7224,	1 loop-thru	2 channel
7226		loop-thru



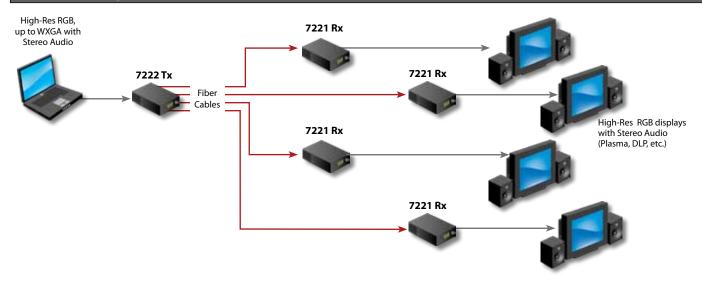
Point-to-Point Distribution



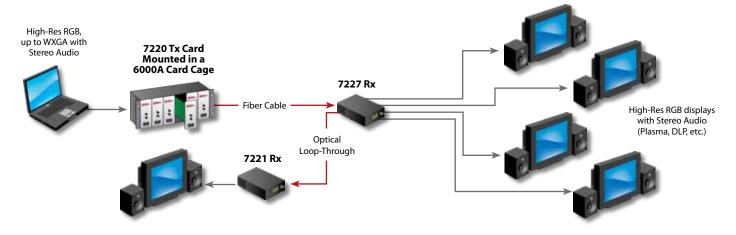
Point-to-Point Distribution; Multiple Baseband Outputs



Point-to-Multipoint Distribution



Drop-and-Repeat Distribution with Optical Loop-Through at Receiver; 1 or 4 Baseband Outputs



Video Specifications	
Number of Video Channels Support	rted
7220, 7221, 7223, 7225, 7227	1 RGBHV
7222, 7224, 7226	1 RGBHV with active loop-thru on input
Number of Baseband Video Outpu	its
7221, 7225	1 RGBHV
7223, 7227	4 RGBHV
RGB Processing	24 bits, no compression, scaling or color space conversion
Input Impedance	RGB: 75 Ohms; H & V: Hi-Z
Input Level	RGB: 714 mV p-p; H & V: 3 to 5 V p-p
H Sync Frequency Range	31.5 to 60 kHz
V Sync Frequency Range	30 to 85 Hz
RGB Format Supported	RGB with separate H and V



Operating Loss Budget
& Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
1310 MM	0-15	0.75
1310 SM	0-15	30
SM = Single Mode Fiber MM = Multimode Fiber		
Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.		

Class 1 Laser product complies with FDA performance standard for laser products, Title 21, Code of Federal Regulations, Sub-Chapter J.

Au	dio :	Spec	ific	atio	ns

Number of Audio Channels Supported	I
7220, 7221, 7223, 7225, 7227	2, unbalanced
7222, 7224, 7226	2, unbalanced, with passive loop-thru on input
Number of Baseband Audio Outputs	
7221, 7225	2, unbalanced
7223, 7227	8, unbalanced
Frequency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Bits-per-Sample/Sampling Rate	24 bits; 54 kHz
THD+N	0.005%, 20 Hz - 20 kHz

Maximum Audio Level	+10 dBu
SNR (A-Weighted)	95 dB
Channel Phase Differential	<u>+</u> 0.1°
Crosstalk	Min. 95 dB (1kHz)
Input Impedance	>24 k Ohms
Output Impedance	< 1 Ohm
Audio to Video Differential Delay (skew)	<300 uSec

General Specifications

LED Indicators

Card version only of 7220 & 7221	Alarm LED
Power Requirements	
7220*, 7221*	9-24 volts AC or DC, 5 watts
7222, 7224, 7226	95-250 volts AC, 47-63 Hz, 9 watts
7223*, 7225*, 7227*	9-24 volts AC or DC, 8 watts

Power, Video, Audio

Physical Size	
7220, 7221	5 W x 1.15 H x 5.25 L (inches) 127 W x 29 H x 133 L (mm)
7222, 7224, 7226	16.75 W x 1.75 H x 10 D (inches) 425 W x 44 H x 254 D (mm)
7223, 7225, 7227	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)

Approximate Weight	
7220, 7221	10 oz; 0.284 kg
7222, 7224, 7226	5.5 lbs; 2.6 kg
7223, 7225, 7227	1.2 lb; 0.55 kg
Optical Connectors	ST
Operating Wavelength	1310 nm
Operating Temp. Range	-20 to +60° C (7220/7221)
	-20 to +50°C

(all others)

Ordering Inf	formation	
7220-KIT-pp*	Complete Kit - contents listed below**	1
7220-B7S	Transmitter, Box Version	1
7220-C7S	Transmitter, Card Version	1
7221-B7S	Receiver, Box Version	1
7221-C7S	Receiver, Card Version	1
7222-7S-pp	Transmitter (1 RU), 4 optical outputs	4
7224-7S-pp	Transmitter (1 RU), 8 optical outputs	8
7226-7S-pp	Transmitter (1 RU), 12 optical outputs	12
7223-B7S	Receiver (Box), 4 RGB w/audio outputs	1
7225-B7S	Receiver (Box), 1 RGB w/audio output, 1 re-clocked optical loop-through	2
7227-B7S	Receiver (Box), 4 RGB w/audio outputs, 1 re-clocked optical loop-through	2
PDPS-1-pp	Power Supply	
101933	6 ft. HD-15M to HD-15M VGA type cable	
1206	6 ft. HD-15M to 5 x BNC-M RGBHV cable	
1214	6 ft. 3.5 mm plug to 3.5 mm plug stereo audio cable	
1213	6 ft. 3.5 mm plug to 2 x RCA-M stereo audio cable	
6340	ST-M to FCPC-F adapter for multimode fiber	
6350	ST-M to FCPC-F adapter for single mode fiber	

**7220-KIT-pp includes:

Qty	Part Number (described above)	*Power Supply Suffix Codes
1	7220-B7S	(pp) for AC Line Cord:
1	7221-B7S	NA - North America
2	PDPS-1-pp (specify line cord)	AU - Australia
2	101933	EU - Europe
1	1206	JP - Japan
2	1214	UK - United Kingdom
1	1213	
1	122960: 250 m (820 ft.) of plenum rated SM fiber with ST connectors and a pulling eye	

About CSI

Communications Specialties, Inc. (CSI) is an award-winning manufacturer of Pro A/V products for the distribution, conversion or transmission of television and computer video signals, including fiber optic transmission systems, scan converters and video scalers. The company was founded in 1983 by veterans of the broadcast industry. Since then, CSI has managed to consistently design innovative products that are used worldwide by Fortune 500 Companies in a variety of markets such as Broadcast/Professional A/V, Videoconferencing, Education, Home Theater, Security, ITS, Industrial Monitoring, and more!

The **Fiberlink®** line offers an extensive and affordable family of fiber optic transmission systems for the Professional A/V marketplace and includes several ground-breaking products for the transmission of high-resolution RGB signals. Systems for point-to-point and point-to-multipoint signal distribution make these products highly desirable for any Pro A/V architecture. New products are constantly being designed and developed and you can get the latest information at commspecial.com

Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



7220 RGB Series





Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

Want to learn more about fiber?

Log on to commspecial.com for fiber related resources written for Pro A/V Professionals by Pro A/V Professionals!



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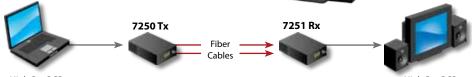


Digitally transmits high resolution RGB (up to WUXGA) and stereo audio over single mode or multimode fiber.

Ideal Applications:

Digital signage, command and control centers, auditoriums, stadiums and theaters, transportation hubs, distance learning, surgical or





High-Res RGB up to UXGA & Stereo Audio High-Res RGB Displays with Stereo Audio

Ordering Information			
Part Number	Description	Fiber Cores	
7250-KIT-pp	Complete Kit - contents listed below*	2	
7250-B7S	Transmitter, Box Version	2	
7250-C7S	Transmitter, Card Version	2	
7251-B7S	Receiver, Box Version	2	
7251-C7S	Receiver, Card Version	2	
PDPS-1-pp	Power Supply		
101933	6 ft. HD-15M to HD-15M VGA type cable		
1206	6 ft. HD-15M to 5 x BNC-M RGBHV cable		
1214	6 ft. 3.5 mm plug to 3.5 mm plug stereo a	nudio cable	
1213	6 ft. 3.5 mm plug to 2 x RCA-M stereo audio cable		
6340	40 ST-M to FCPC-F adapter for multimode fiber		
6350	ST-M to FCPC-F adapter for single mode f	fiber	

7250-Kit-pp includes:

Qty	Part Number
1	7250-B7S
1	7251-B7S
2	PDPS-1-pp (specify line cord)
2	101933
1	1206
2	1214
1	1213
1	124857: 250 m (820 ft.) of plenum rated duplex SM fiber with ST connectors and a pulling eye

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America	
AU - Australia	
EU - Europe	
JP - Japan	
UK - United Kingdom	

Signal	Channels	Direction
RGB (to WUXGA)	1	→
Audio	2	──

Features

Transmits VGA, SVGA, XGA, WXGA, SXGA, SXGA+, UXGA and WUXGA (640 x 480 up to 1920 x 1200)

Supports HDTV resolutions of 480p, 720p, 1080i and 1080p (RGBHV format only)

Uses all digital processing with no compression for crystal clear signals and no color pixel skewing

Requires no adjustments, equalization or de-skewing during installation

Transmits signals over two single mode or multimode fiber optic cores at 1310 nm wavelength

Low audio/video skew, <300 uSec

Small, lightweight, uses low power

Complete kit available for a "ready to install" solution. Includes transmitter, receiver, power supplies, 250 meters of duplex fiber and various audio and VGA cables

Unique feature allows the two fibers to be cross connected without affecting operation!

Fiber cables can be up to 20 meters different in length!

RoHS Compliant



631-273-0404 | commspecial.com info@commspecial.com

Video Specifications	
Number of Video Channels	1 RGBHV
RGB Processing	24 bits, no compression or scaling
Input Impedance	RGB: 75 Ohms; H & V: Hi-Z
Input Level	RGB: 714 mV p-p; H & V: 3 to 5 V p-p
H Sync Frequency Range	15 to 75 kHz
V Sync Frequency Range	30 to 85 Hz
RGB Format Supported	RGB with separate H and V

Number of Audio Channels	2, unbalanced
requency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Bits-per-Sample/Sampling Rate	24 bits; 54 kHz
Maximum Audio Level	+10 dBu
NR (A-Weighted)	95 dB
THD+N	0.005%, 20 Hz - 20 kHz
Channel Phase Differential	<u>±</u> 0.1°
Prosstalk	Min. 95 dB (1 kHz)
nput Impedance	>24 k Ohms
Output Impedance	< 1 Ohm
audio to Video Diff. Delay (skew)	<300 uSec

LED Indicators	Power, Video, Audio, Alarm LED (card version only)
Allowable Differential Fiber Length	20 meters
Power Requirements*	9-24 volts AC or DC, 10 watts
Operating Temperature Range	-20°C to +50°C
Optical Connectors	ST x 2
Operating Wavelength	1310 nm
Physical Size	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)
Weight	1 lb. (0.455 kg)
Slots filled in 6000A Card Cage	2





Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)	
1310 MM	0-15	0.75	
1310 SM	0-15	30	
SM = Single Mode Fiber MM=Mulitmode Fiber			
 Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded. 			

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Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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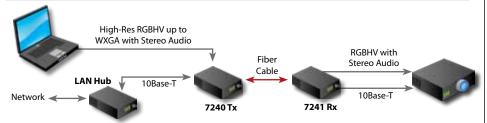
AV meets IT with this revolutionary fiber product, combining RGBHV, stereo audio, Ethernet and 2-way data support, all over a single fiber optic core

Ideal Applications:

Conference Rooms, Class Rooms, Boardrooms, Command and Control, Transportation Hubs, Airports, Museums



RGBHV, Stereo Audio and 2-Way Data (Ethernet or RS-232)



RGBHV, Stereo Audio and 1-way Data



Ordering Information			
Part Number	Description	Fiber Cores	
7240-xyS	Transmitter - RGBHV, Audio, 10Base-T, 2-way data	1	
7241-xyS	Receiver - RGBHV, Audio, 10Base-T, 2-way data	1	
7242-x7S	Transmitter - RGBHV, Audio, 1-way data, SM or MM	1	
7243-x7S	Receiver - RGBHV, Audio, 1-way data, SM or MM	1	
PDPS-1-pp	Power Supply		
101933	6 ft. HD-15M to HD-15M VGA type cable		
1206	6 ft. HD-15M to 5 x BNC-M RGBHV cable		
1213	6 ft. 3.5 mm plug to 2 x RCA-M stereo audio cable		
1214	6 ft. 3.5 mm plug to 3.5 mm plug stereo audio cable		
6340	ST-M to FCPC-F adapter for multimode fiber		
6350	ST-M to FCPC-F adapter for single mode fiber		

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Part Number Suffix Codes:

Signal	Channels	Direction
7240/7241		
RGB Audio 10Base-T Data	1 2 1 1	\Rightarrow
7242/7243		
RGB Audio Data	1 2 1	$ \Longrightarrow $

Features

Digitally transmits RGBHV, stereo audio, bidirectional 10Base-T and bidirectional data over a single fiber.

Transmitter/receiver pair for RGBHV, stereo audio and one-way data also available.

Supports VGA, SVGA, XGA and WXGA (640 x 480 up to 1366 x 768), and HDTV resolutions of 480p, 720p and 1080i (RGBHV format only).

Uses single mode or multimode fiber; see ordering information.

Low audio/video skew, <300 uSec

All digital processing and transmission delivers crystal clear signals and no color pixel skewing.

Transparent bidirectional 10Base-T support enables communication between a local device, such as a projector or a media controller, and a local area network (LAN) server.

Transparent bidirectional data channel supports RS-232, RS-422 and RS-485 protocols. 7242 & 7243 models support one-way RS-232 and RS-422.

Card or box version. Card fits within model 6000A card cage.



Video Specifications:				
1 RGBHV				
1				
24 bits, no compression or scaling				
RGB: 75 Ohms; H & V: Hi-Z				
RGB: 714 mV p-p; H & V: 3 to 5 V p-p				
H: 15 to 60 kHz; V: 30 to 85 Hz				
RGB with separate H and V				
HD-15F				

Audio Specifications:	
Number of Audio Channels	2
Number of Baseband Audio Outputs	2
Frequency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Bits-per-Sample/Sampling Rate	24 bits; 52 kHz
Maximum Audio Level; SNR (A-Weighted)	+10 dBu; 95 dB
THD+N	0.005%, 20 Hz - 20 kHz
Channel Phase Differential	+0.1°
Crosstalk	Min. 95 dB (1 kHz)
Input & Output Impedance	Input: >24 k Ohms; Output: < 1 Ohm
Audio to Video Diff. Delay (skew)	<300 uSec
Audio Connector	3.5 mm jack

Port: 10Base-T, RJ-45 connector, Auto-MDIX Speed: 10 Mbps Ethernet

Data Specifications

Data Bandwidth	DC to 115 Kb/sec, max.
Control Format	switch selectable RS-232 & RS-422; Only the 7240/4241 models support RS-485 (2-wire and 4-wire)
Protocols	NRZ, NRZI, RZ, Manchester, Bi-phase
Signal Connectors:	Removable terminal block

IEDI II .	D
LED Indicators	Power, Video, Audio, Data, Link, Activit Alarm (card version only)
Operating Temperature Range	-20° to +50° C
Operating Power	9-24 Volts AC or DC@7.4 watts (max.)
Optical Connectors	ST
Operating Wavelength	1310 nm; 1550 nm on return path - SN 850 nm on return path - MM
Physical Size	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)
Weight	Approx. 1 lb., 3 oz.; 0.589 kg
Slots filled in 6000A Card Cage	2



7240 RGB Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)			
7240/7241					
1310 MM	0-10	0.35			
1310 SM	0-15	30			
7242/7243					
1310 MM	15	0.75			
1310 SM	15	30			
SM = Single M	SM = Single Mode Fiber				
MM = Multimode Fiber					
Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.					

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7510 DVI Series

DVI transmission (up to 1920x1200) and stereo audio over one single mode or multimode fiber without compression, scaling or adjustments.

Ideal Applications:



Ordering	Information
----------	-------------

Part Number	Description	Fiber Cores
7510-xyS	Transmitter	1
7511-xyS	Receiver	1
7512-x1S	Transmitter, Dual MM Optical Outputs	2
7510-KIT-pp*	Complete 7510 Series Kit	1
PDPS-2-pp	Power Supply	N/A

*7510 Complete Kit Contents:

Qty	Part Number	Qty	Part Number
1	7510-B7S Transmitter (SM only)	1	7511-B7S Receiver (SM only)
2	PDPS-2-pp (specify line cord)	1	122960 - 250 Meter SM Fiber ST Connectors, pull hook
1	126216 - 6ft., DVI (M) to DVI (M)	2	1214 - 6ft., 3.5mm to 3.5mm stereo audio cable
1	1213 - 3.5mm to 2 RCA (M) stereo	audio ca	able

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Part Number Suffix Codes:

x:	В	Box Version	y:	1	850 nm Multimode (MM)
	C	Card Version	•	7	1310 nm Single Mode (SM)

7510, 7511, and 7512 are not compatible with 7500, 7501 or 7502 products

Signal	Channels	Direction
DVI to WUXGA	1	→
Audio	2	──

Features

Transmits single-link DVI (640 x 480 up to 1920 x 1200 - 165 MHz pixel clock)

Supports HDTV resolutions of 480p, 720p, 1080i and 1080p (DVI format)

Uses no compression, color space conversion or scaling for crystal clear signals

Only one fiber used - no pixel skewing

Supports up to 45 foot (13.72m) DVI input cable

DVI Input loop-through on transmitter

Supports EDID from loop-through, internal emulation from the transmitter, or you may capture and store EDID information.

Requires no adjustments, equalization or de-skewing during installation

Advanced input circuit equalizes and re-clocks noisy and distorted DVI input signals

Two DVI outputs on box receiver allows for driving two monitors

Transmits signals over one fiber using advanced CWDM multiplexing

Low audio/video skew, <300 uSec

RoHS Compliant



info@commspecial.com

Video Specifications	
Input Type	DVI-D or DVI-I (digital signal only) single link
Number of Video Channels	1 single-link DVI-D up to 1920x1200
Video Processing	24 bits, no compression or scaling
DVI Input Loop-through	Yes; both box & card versions
EDID (DDC) Support	From loop-through, internal or capture & storage capability
Pixel Clock Range	25 - 165 MHz, continuous
Scanning System Supported	Progressive or Interlaced
Color Space Format Supported	RGB or YPrPb
Maximum Input Cable Length	45 Feet (13.72m)
Maximum Output Cable Length	16 Feet (5m)
Number of DVI Outputs	2 on box version, 1 on card version

Audio Specifications	
Number of Audio Channels	2, unbalanced
Frequency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Bits-per-Sample/Sampling Rate	24 bits; >48 kHz
Maximum Audio Level	+10 dBu
SNR (A-Weighted)	100 dB
THD+N	0.001%, 20 Hz - 20 kHz
Channel Phase Differential	<u>+</u> 0.1°
Crosstalk	100 dB (1 kHz)
Input Impedance	>24K Ohms
Output Impedance	< 1 Ohm
Audio to Video Diff. Delay (skew)	300 uSec

LED Indicators	Power, Video, Audio, Alarm LED (card version only)
Power Requirements*	9-24 volts AC or DC, 10 watts
Operating Temperature Range	-20°C to +45°C
Optical Connector	7510/7511: ST x 1 7512: ST x 2
Operating Wavelength	SM: CWDM (1300-1600nm band) MM: CWDM (850nm band)
Physical Size	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)
Weight	1 lb. (0.455 kg)
Slots filled in 6000A Card Cage	3





Operating Loss Budget & Maximum Usable Distance* Wavelength Loss(dB) Distance (km) 1310 SM 0-15 15 850 MM 0-8 0.75 (50u) 0.35 (62.5u) 0.60 (50u) 850 MM 0-4 **Dual Optical** 0.30 (62.5u) **Output Version** SM = Single Mode Fiber MM = Multimode Fiber *Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



UPDATED 1/12/2010

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3360 3G/HD/SD-SDI & 4 Pairs of **AES/EBU Digital Audio Series**

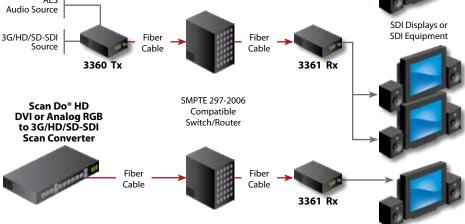
Broadcast quality 3G/HD/SD-SDI & AES/EBU Digital Audio transmission over one single mode or

multimode fiber with full SMPTE compliance.

Ideal Applications:

Broadcast or corporate studios, OB Vans, Rental & Staging, auditoriums, stadiums and theaters, airport or transportation hubs, distance learning, surgical or medical imaging and more!





Ordering Information		
Part Number	Description	Fiber Cores
3360-x7z	Transmitter	1
3361-x7z	Receiver	1
PDPS-1-pp	Power Supply	
Power Supply Suffix Codes (pp) for AC Line Cord:		

NA - North America AU - Australia EU - Europe JP - Japan **UK - United Kingdom**

Part Number Suffix Codes:

В **Box Version** LC Connector L C **Card Version** S ST Connector

Signal	Channels	Direction
3G/HD/SD-SDI	1	\longrightarrow
AES/EBU	8 (4 Pairs)	\longrightarrow

Features

Inserts up to 8 channels (4 pairs) of AES/EBU digital audio

Automatic Sample Rate Conversion (SRC) of audio inputs

75 ohm, unbalanced BNC audio interface per AES3id and SMPTE 276M

Transmitter can pass existing embedded audio or insert audio on a pair by pair basis

Signal is equalized and re-clocked prior to fiber optic transmission

Receiver features a re-clocked SDI output

Designed for fiber optic interoperability with other SMPTE 297-2006 fiber optic compliant devices up to 2.97 Gbps

Immunity to pathological patterns over entire link budget and operating temperature range

Compliant with SMPTE 259M-2006, 292-2006, 424M-2006, 297-2006, 276M

Supports both Single Mode and Multimode (62.5u & 50u) fiber types

Supports 3G/HD/SD-SDI inputs with or without embedded audio and data

14 dB Optical Link Budget @ 2.97 Gbps

Wide operating temperature range: -10° C to +50° C

Available in Box and Card versions



Fiberlink® 3360 Series General Specifications		
Indicators	Power, Data Rate lock (3G, HD, SD) Alarm (card version only)	
Box Version Dimensions	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)	
Weight	approx. 1 lb.; 0.45 kg	
Number of slots in 6000A Card Cage	2	
Power	9-24 volts, AC or DC, 3360: 8 watts, 27.30 BTU/Hr 3361: 2.5 watts, 8.53 BTU/Hr	
Operating Temperature	-10° C to +50° C	

Fiberlink® 3360 Transmitter Specifications

Serial Video BNC Input	
Number of Inputs	1
Data Rate Range	270 Mbps to 2.97 Gbps
Supported Standards	SMPTE 259M, 292, 297-2006, 424M-2006
Re-clocked Data Rates	270 Mbps (SMPTE 259M), 1.485 Gbps (SMPTE 292), 2.97 Gbps (SMPTE 494M)
Equalization	Automatic up to 100m of Belden 1694A at 3.0 Gbps, 200m at 1.485 Gbps and 350m at 270 Mbps
Return Loss	>10dB up to 2.97 Gbps

Optical Output	
SMPTE 297-2006 Labeling	L-PC-ABCD-1310
Connector	LC receptacle, PC polish or ST
Wavelength	1310nm (nominal)
Emmiter Type	FP Laser
Output Power (nominal)	-3.5 dBm at 270 Mbps; -3.5 dBm at 1.485 Gbps; -3.5 dBm at 2.97 Gbps

Audio Specifications	
Unbalanced, 75 ohms, BNC per AES3id and SMPTE 276M	
Channels	8 (4pairs)
Embedding	Selectable per pair
Sample Rate Conversion (SRC)	32-96 kHz input range converted to 48 kHz
SDI pre-embedded audio	All channels supported for pass through. Pairs 1 to 4 may be stripped selectable for each pair



3360 3G/HD/SD-SDI & 4 Pairs of AES/EBU Digital Audio Series

Fiberlink® 3360 Transmitter



Dip Switches allow for quick configuration of your audio embedding preferences

Front Panel Audio LEDs quickly reveal which pairs have audio present



Fiberlink® 3361 Receiver

The Fiberlink®
3360 Series is available in a
card version that is compatible
with the Fiberlink® 6000A
Rackmountable Card Cage.

Fiberlink® 3361 Receiver Specifications Fiber Optic Input SMPTE 297-2006 Labeling PC-ABCD-1310-1550 Connector LC receptacle, PC polish or ST Wavelength 1100 - 1620 nm Minimum Input Sensitivity -17 dBm at 2.97 Gbps; -22 dBm at 1.485 Gbps -24 dBm at 270 Mbps; Maximum Input Power 0 dBm

1
800mV ± 10%
0V ± 0.5V
< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292; 0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M
< 10% of amplitude
< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 2.0 UI at 2.97 Gbps with color bar signal
< 0.2 UI at 270 Mbps; < 0.2 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
At 270 Mbps, 1.485 Gbps & 2.97 Gbps

Audio Specifications

Unbalanced, 75 ohms, BNC per AES3id and SMPTE 276M

Channels 8 (4pairs)

Output mute Each audio output pair may be muted on a selectable basis

Operating Loss Budget & Maximum Usable Distance*

Fiber Type	Loss(dB)	Data Rate	Distance	
Single Mode	0-14	2.97 Gbps	30 km	
	0-17	1.485 Gbps	48 km	
	0-20	270 Mbps	50 km	
Multimode (62.5u)	0-14	2.97 Gbps	.8 km	
	0-17	1.485 Gbps	1 km	
	0-20	270 Mbps	2.5 km	
Multimode (50u)	0-14	2.97 Gbps	1 km	
	0-17	1.485 Gbps	1.3 km	
	0-20	270 Mbps	3 km	

^{*}Distance specifications are approximate, based upon connecting a 3360 Transmitter to a 3361 Receiver, and are not guaranteed. CSI cannot estimate or guarantee operating loss budgets when the 3360 Series is used with other, non-Fiberlink devices. Operating loss budget must not be exceeded.



3360 3G/HD/SD-SDI & 4 Pairs of AES/EBU Digital Audio Series

Smart & Simple 3G/HD/SD-SDI Signal Routing with Fiberlink Matrix

Fiberlink® 3360 Transmitter



Fiberlink® Matrix 32x32 Optical Matrix



Fiberlink® 3361 Receiver Fiberlink® 3361 Receiver



Fiberlink® 3361 Receiver

Learn more about the Fiberlink® Matrix at commspecial.com

Other 3G-SDI Products

Fiberlink Matrix

Fully configurable 32x32 Optical Matrix



GSA Schedule CEFG

3360 3G/HD/SD-SDI & 4 Pairs of

AES/EBU Digital Audio Series

Fiberlink 3350 3G/HD/SD-SDI Series

SMPTE compliant 3G/HD/SD-SDI over one single mode or multimode fiber optic core



Scan Do® HD

Computer Video to 3G/HD/SD-SDI Scan Converter



Learn more about the industry's largest selection of fiber optic transmission products at commspecial.com



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



UPDATED 8/13/2009

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3350 3G/HD/SD-SDI Series

Broadcast quality 3G/HD/SD-SDI Transmission over one single mode or multimode fiber with full SMPTE

compliance & embedded audio & data signal support.

Ideal Applications:

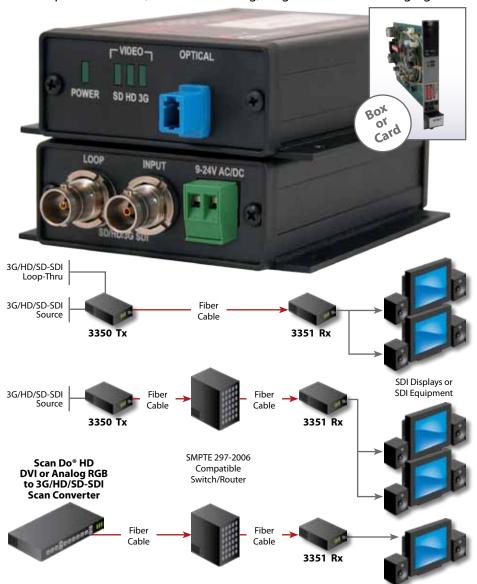
В

C

Box Version

Card Version

Broadcast or corporate studios, OB Vans, Rental & Staging, auditoriums, stadiums and theaters, airport or transportation hubs, distance learning, surgical or medical imaging and more!



	-
ormation	
Description	Fiber Cores
Transmitter	1
Receiver	1
Power Supply	
uffix Codes (pp) for AC Line Cord: ca AU - Australia UK - United Kingdom	EU - Europe
ffix Codes:	
	Description Transmitter Receiver Power Supply Iffix Codes (pp) for AC Line Cord: ca AU - Australia UK - United Kingdom

z: L

S

LC Connector

ST Connector

Signal	Channels	Direction
3G/HD/SD-SDI	1	→

Features

Signal is equalized and re-clocked prior to fiber optic transmission

Transmitter features a re-clocked SDI loop through

Receiver features two re-clocked SDI outputs

Designed for fiber optic interoperability with other SMPTE 297-2006 fiber optic compliant devices up to 2.97 Gbps

Immunity to pathological patterns over entire link budget and operating temperature range

Compliant with SMPTE 259M-2006, 292-2006, 424M-2006, 297-2006

Supports transmission of SMPTE 305M-2005, 310M-2004, 344M-2000, DVB-ASI

Supports both Single Mode and Multimode (62.5u & 50u) fiber types

Supports 3G/HD/SD-SDI inputs with or without embedded audio and data

14 dB Optical Link Budget @ 2.97 Gbps

Wide operating temperature range: -10° C to $+50^{\circ}$ C

Available in Box and Card versions

Card version compatible with the Fiberlink® 6000A Rack Card Cage

Designed and Manufactured in the USA by CSI



Fiberlink® 3350 Transmitter Specifications **Serial Video BNC Input Number of Inputs** 1 Data Rate Range 19.4 Mbps to 2.97 Gbps **Supported Standards** SMPTE 259M, 292, 297-2006, 424M-2006, 305M, 310M, 344M, **DVB-ASI** Re-clocked Data Rates 270 Mbps (SMPTE 259M, DVB-ASI-270), 1.485 Gbps (SMPTE 292), 2.97 Gbps (SMPTE 494M) Equalization Automatic up to 100m of Belden 1694A at 3.0 Gbps, 200m at 1.485 Gbps and 350m at 270 Mbps >10dB up to 2.97 Gbps **Return Loss**

Serial Video BNC Loop-Through Output	
Number of Loop-Throughs	1
Signal Level	800mV ± 10%
DC Offset	0V ± 0.5V
Rise/Fall Time	< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292; 0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M
Overshoot	< 10% of amplitude
Timing Jitter	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 2.0 UI at 2.97 Gbps with color bar signal
Alignment Jitter	< 0.2 UI at 270 Mbps; < 0.2 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
Re-clocking	At 270 Mbps, 1.485 Gbps & 2.97 Gbps

Optical Output	
SMPTE 297-2006 Labeling	L-PC-ABCD-1310
Connector	LC receptacle, PC polish or ST
Wavelength	1310nm (nominal)
Emmiter Type	FP Laser
Output Power (nominal)	-3.5 dBm at 270 Mbps; -3.5 dBm at1.485 Gbps; -3.5 dBm at 2.97 Gbps

Learn more about the industry's largest selection of fiber optic transmission products at commspecial.com



3350 3G/HD/SD-SDI Series

Fiberlink® 3350 Transmitter



The 3350 Transmitter provides a convenient re-clocked and equalized 3G/HD/SD-SDI Loop-Through!

> Universal Power Supply makes the 3350 Series compatible with any region!

Compact enclosure makes installation in tight or prohibitive spaces a snap!

The 3351 Receiver delivers pristine output with two re-clocked 3G/HD/SD-SDI outputs!



Fiberlink® 3351 Receiver

The Fiberlink®
3350 Series is available in a
card version that is compatible
with the Fiberlink® 6000A
Rackmountable Card Cage.

Fiberlink* 3351 Receiver Specifications	
PC-ABCD-1310-1550	
LC receptacle, PC polish or ST	
1100 - 1620 nm	
-17 dBm at 2.97 Gbps; -20 dBm at 1.485 Gbps -23 dBm at 270 Mbps;	
0 dBm	

Serial Video BNC Outputs	
Number of Outputs	2
Signal Level	800mV ± 10%
DC Offset	$0V \pm 0.5V$
Rise/Fall Time	< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292; 0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M
Overshoot	< 10% of amplitude
Timing Jitter	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 2.0 UI at 2.97 Gbps with color bar signal
Alignment Jitter	< 0.2 UI at 270 Mbps; < 0.2 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
Re-clocking	At 270 Mbps, 1.485 Gbps & 2.97 Gbps

Fiberlink® 3350 Series General Specifications Indicators Power, Data Rate lock (3G, HD, SD/DVB-ASI) Alarm (Card Version Only) **Box Version Dimensions** 5.21 x 3.50 x 1.15 (in) 133 x 89 x 30 (mm) Weight 6.9 ounces, 196 grams Number of slots in 6000A Card Cage Power 9-24 volts, AC or DC, 3350: 1.6 watts, 5.46 BTU/Hr 3351: 1.4 watts, 4.78 BTU/Hr **Operating Temperature** -10° C to +50° C

Learn more about the industry's largest selection of fiber optic transmission products at commspecial.com



3350 3G/HD/SD-SDI Series

Smart & Simple 3G/HD/SD-SDI Signal Routing with Fiberlink Matrix

Fiberlink® 3350 Transmitter



Fiberlink® Matrix 32x32 Optical Matrix



Fiberlink® 3351 Receiver

Learn more about the Fiberlink® Matrix at commspecial.com

Operating Loss Budget & Maximum Usable Distance*				
Fiber Type	Loss(dB)	Data Rate	Distance	
Single Mode	0-14	2.97 Gbps	30 km	
	0-17	1.485 Gbps	48 km	
	0-20	270 Mbps	50 km	
Multimode (62.5u)	0-14	2.97 Gbps	.8 km	
	0-17	1.485 Gbps	1 km	
	0-20	270 Mbps	2.5 km	
Multimode (50u)	0-14	2.97 Gbps	1 km	
	0-17	1.485 Gbps	1.3 km	
	0-20	270 Mbps	3 km	

^{*}Distance specifications are approximate, based upon connecting a 3350 Transmitter to a 3351 Receiver, and are not guaranteed. CSI cannot estimate or guarantee operating loss budgets when the 3350 Series is used with other, non-Fiberlink devices. Operating loss budget must not be exceeded.



3350 3G/HD/SD-SDI Series



Learn more about the industry's largest selection of fiber optic transmission products at commspecial.com

Other 3G-SDI Products

Fiberlink Matrix

Fully configurable 32x32 Optical Matrix



Fiberlink 3360 3G/HD/SD-SDI & 4 Pairs of AES/EBU Digital Audio Series

SMPTE compliant 3G/HD/SD-SDI with 4 Pairs (8 Channels) of AES/EBU Digital Audio Embedding over one fiber



Scan Do® HD

Computer Video to 3G/HD/SD-SDI Scan Converter





Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



UPDATED 6/9/2009

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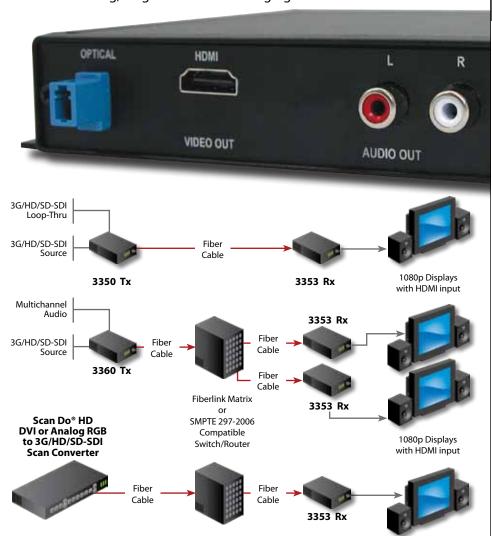


3353 3G/HD/SD-SDI to HDMI Receiver

Broadcast quality 3G/HD/SD-SDI Transmission over one single mode or multimode fiber with full SMPTE compliance to HDMI baseband output.

Ideal Applications:

Confidence monitoring, broadcast or corporate studios, OB trucks, digital signage, rental and staging, auditoriums, stadiums and theaters, large venue projector installations, airport or transportation hubs, distance learning, surgical or medical imaging and more!



Part Number	Description	Fiber Cores
3353-B7z	Receiver	1
3353-S-B7z	Receiver with optional SDI output	1
PDPS-1-pp	Power Supply	

Part Number Suffix Codes:

1 IC Connector S ST Connector

Signal	Channels	Direction
3G/HD/SD-SDI to HDMI & Stereo Audio	1	→

Features

Convert 3G/HD/SD-SDI with embedded audio to HDMI with audio pair selection

Supports all SD and HD resolutions to 1080p/60

Fully SMPTE 297-2006 compliant fiber input

HDMI embedded and stereo line level outputs (if audio present in SDI stream)

User selection from up to 8 audio channel pairs for multilingual or multimessage support

Automatic selection of output resolution - no scaling

Optional re-clocked SDI output

ST and LC fiber connector options

Small compact design

Compatible with Fiberlink 3350, 3360 & 3380 Series, Fiberlink Matrix and Scan Do® HD's optical output.

All Fiberlink® 3G/HD/SD-SDI products are compliant with SMPTE 297-2006 and has the ability to operate seamlessly with Fiberlink® Matrix and other SMPTE 297-2006 fiber optic compliant devices.

All Fiberlink® 3G/HD/SD-SDI products are immune to pathological signals over the entire budget link and operating temperature range and operate with both single mode and multimode fiber types.



PRELIMINARY SPECIFICATIONS - SUBJECT TO CHANGE

Fiberlink® 3353 Receiver Specifications

riber Optic input	
SMPTE 297-2006 Labeling	PC-ABCD-1310-1550
Connector	LC receptacle, PC polish or ST
Wavelength	1100 - 1620 nm
Minimum Input Sensitivity	-17 dBm at 2.97 Gbps; -20 dBm at 1.485 Gbps -23 dBm at 270 Mbps;
Maximum Input Power	0 dBm

1
HDMI Female
Single link HDMI with embedded audio, RGB or YCrCb as negotiated with display
All 3G/HD/SD-SDI formats from standard definition to 1080p/60
Optional

2 channels, unbalanced, line level 2 channels embedded in HDMI signal
RCA Jacks
Front panel selection of one of 8 audio channel pairs on SDI signal to output

NOTE: Audio on HDMI and line level are available simultaneoulsy and extracted from audio embedded within SDI signal in accordance with SMPTE standards.

Optional SDI Output	
Signal Level	800mV ± 10%
DC Offset	$0V \pm 0.5V$
Rise/Fall Time	< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292; 0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M
Overshoot	< 10% of amplitude
Timing Jitter	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 2.0 UI at 2.97 Gbps with color bar signal
Alignment Jitter	< 0.2 UI at 270 Mbps; < 0.2 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
Re-clocking	At 270 Mbps, 1.485 Gbps & 2.97 Gbps

General Specifications	
Indicators	Power, Alarm, Data Rate Lock (3G, HD, SD)
Box Version Dimensions	6.5 W x 1.15 H x 6 L (inches) 165 W x 29 H x 152 L (mm)
Weight	16 ounces, 453.5 grams
Power	9-24 volts, AC or DC,
Operating Temperature	-10° C to +50° C



3353 3G/HD/SD-SDI to HDMI Receiver



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Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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3355 3G/HD/SD-SDI to DVI Receiver

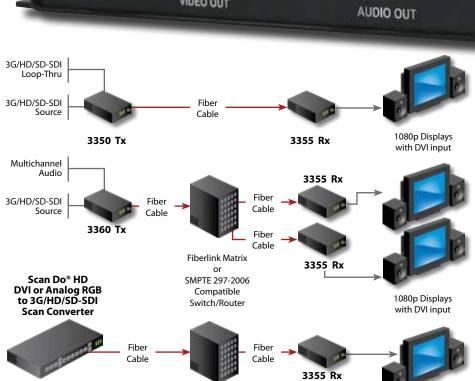
Broadcast quality 3G/HD/SD-SDI Transmission over one single mode or multimode fiber with full SMPTE compliance to DVI baseband output.

Ideal Applications:

Confidence monitoring, broadcast or corporate studios, OB trucks, digital signage, rental and staging, auditoriums, stadiums and theaters, large venue projector installations, airport or transportation hubs, distance learning, surgical or medical imaging and more!

Signal	Channels	Direction
3G/HD/SD-SDI to DVI & Stereo Audio	1	\longrightarrow





Convert 3G/HD/SD-SDI with embedded
audio to DVI with audio pair selection

Supports all SD and HD resolutions to 1080p/60

Fully SMPTE 297-2006 compliant fiber input

Stereo line level outputs (if audio present in SDI stream)

User selection from up to 8 audio channel pairs for multilingual or multimessage support

Automatic selection of output resolution - no scaling

Optional re-clocked SDI output

ST and LC fiber connector options

Small compact design

Compatible with Fiberlink 3350, 3360 & 3380 Series, Fiberlink Matrix and Scan Do® HD's optical output.

All Fiberlink® 3G/HD/SD-SDI products are compliant with SMPTE 297-2006 and has the ability to operate seamlessly with Fiberlink® Matrix and other SMPTE 297-2006 fiber optic compliant devices.

All Fiberlink® 3G/HD/SD-SDI products are immune to pathological signals over the entire budget link and operating temperature range and operate with both single mode and multimode fiber types.

Ordering Information		
Part Number	Description	Fiber Cores
3355-B7z	Receiver	1
3355-S-B7z	Receiver with optional SDI output	1
PDPS-1-pp	Power Supply	

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Part Number Suffix Codes:

z: L LC Connector S ST Connector



PRELIMINARY SPECIFICATIONS - SUBJECT TO CHANGE

Fiber Ink® 3355 Receiver Specifications Fiber Optic Input SMPTE 297-2006 Labeling PC-ABCD-1310-1550 Connector LC receptacle, PC polish or ST Wavelength 1100 - 1620 nm Minimum Input Sensitivity -17 dBm at 2.97 Gbps; -20 dBm at 1.485 Gbps -23 dBm at 270 Mbps;

0 dBm

Maximum Input Power

Ontional SDI Outnut

Video Output	
Number of Outputs	1
Connector Type	DVI-I Female (Digital output only)
Signal Format	Single link DVI, RGB or YCrCb as negotiated with display
Resolutions Supported	All 3G/HD/SD-SDI formats from standard definition to 1080p/60
SDI Output	Optional

Audio Output	
Number of Audio Channels	2 channels, unbalanced, line level 2 channels embedded in HDMI signal
Audio Connector	RCA Jacks
Switches	Front panel selection of one of 8 audio channel pairs on SDI signal to output
NOTE: Audio on line level is e	extracted from audio embedded within SDI

signal in accordance with SMPTE standards.

Optional 3DI Output	
Signal Level	800mV ± 10%
DC Offset	0V ± 0.5V
Rise/Fall Time	< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292; 0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M
Overshoot	< 10% of amplitude
Timing Jitter	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 2.0 UI at 2.97 Gbps with color bar signal
Alignment Jitter	< 0.2 UI at 270 Mbps; < 0.2 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
Re-clocking	At 270 Mbps, 1.485 Gbps & 2.97 Gbps

Indicators	Power, Alarm,
inuicators	Data Rate Lock (3G, HD, SD)
Box Version Dimensions	6.5 W x 1.15 H x 6 L (inches) 165 W x 29 H x 152 L (mm)
Weight	16 ounces, 453.5 grams
Power	9-24 volts, AC or DC,
Operating Temperature	-10° C to +50° C



3355 3G/HD/SD-SDI to DVI Receiver



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Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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3357 3G/HD/SD-SDI to VGA or Component Video Receiver

3G/HD/SD-SDI to

VGA or Component

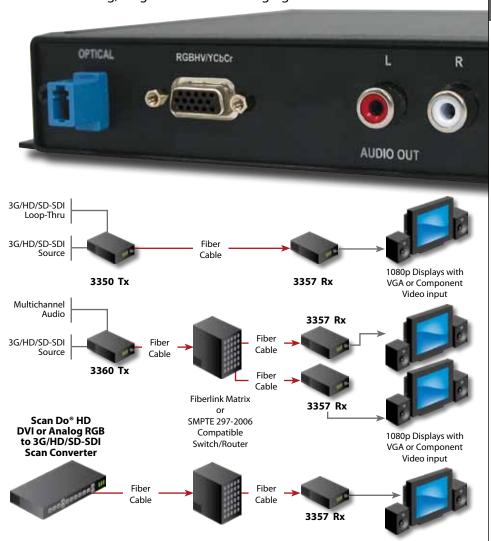
Video & Stereo Audio

Signal

Broadcast quality 3G/HD/SD-SDI Transmission over one single mode or multimode fiber with full SMPTE compliance to VGA or Component Video output.

Ideal Applications:

Confidence monitoring, broadcast or corporate studios, OB trucks, digital signage, rental and staging, auditoriums, stadiums and theaters, large venue projector installations, airport or transportation hubs, distance learning, surgical or medical imaging and more!



Part Number	Description	Fiber Cores
3357-B7z	Receiver	1
3357-S-B7z	Receiver with optional SDI output	1
PDPS-1-pp	Power Supply	

UK - United Kingdom

Part Number Suffix Codes:

JP - Japan

L LC Connector
S ST Connector

Convert 3G/HD/SD-SDI with embedded audio to VGA or Component Video with audio pair selection

Channels

Direction

Supports all SD and HD resolutions to 1080p/60

Fully SMPTE 297-2006 compliant fiber input

External switch sets VGA or Component Video modes of operation

Stereo line level outputs (if audio present in SDI stream)

User selection from up to 8 audio channel pairs for multilingual or multimessage support

Automatic selection of output resolution - no scaling

Optional re-clocked SDI output

ST and LC fiber connector options

Small compact design

Compatible with Fiberlink 3350, 3360 & 3380 Series, Fiberlink Matrix and Scan Do® HD's optical output.

All Fiberlink® 3G/HD/SD-SDI products are compliant with SMPTE 297-2006 and has the ability to operate seamlessly with Fiberlink® Matrix and other SMPTE 297-2006 fiber optic compliant devices.

All Fiberlink® 3G/HD/SD-SDI products are immune to pathological signals over the entire budget link and operating temperature range and operate with both single mode and multimode fiber types.



PRELIMINARY SPECIFICATIONS - SUBJECT TO CHANGE

Fiberlink® 3357 Receiver Specifications		
Fiber Optic Input		
SMPTE 297-2006 Labeling	PC-ABCD-1310-1550	
Connector	LC receptacle, PC polish or ST	
Wavelength	1100 - 1620 nm	
Minimum Input Sensitivity	-17 dBm at 2.97 Gbps; -20 dBm at 1.485 Gbps -23 dBm at 270 Mbps;	
Maximum Input Power	0 dBm	

Video Output	
Number of Outputs	1
Connector Type	DB-15 Female
Signal Format	RGB or YCrCb as set by switch
Resolutions Supported	All 3G/HD/SD-SDI formats from standard definition to 1080p/60
SDI Output	Optional

Audio Output	
Number of Audio Channels	2 channels, unbalanced, line level 2 channels embedded in HDMI signal
Audio Connector	RCA Jacks
Switches	Front panel selection of one of 8 audio channel pairs on SDI signal to output
	Rear panel switch to ser VGA or YCrCb output format
NOTE: Audio on line level is e	extracted from audio embedded within SDI

signal in accordance with SMPTE standards. **Optional SDI Output**

Signal Level	800mV ± 10%
DC Offset	0V ± 0.5V
Rise/Fall Time	< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292; 0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M
Overshoot	< 10% of amplitude
Timing Jitter	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 2.0 UI at 2.97 Gbps with color bar signal
Alignment Jitter	< 0.2 UI at 270 Mbps; < 0.2 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
Re-clocking	At 270 Mbps, 1.485 Gbps & 2.97 Gbps

General Specifications				
Indicators	Power, Alarm, Data Rate Lock (3G, HD, SD)			
Box Version Dimensions	6.5 W x 1.15 H x 6 L (inches) 165 W x 29 H x 152 L (mm)			
Weight	16 ounces, 453.5 grams			
Power	9-24 volts, AC or DC,			
Operating Temperature	-10° C to +50° C			



3357 3G/HD/SD-SDI to VGA or Component Video Receiver



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Flex System

Any combination of video, audio, data and contact closure signals, transmitted digitally in one or both directions, over one or two fibers



Transmitter, receiver and transceiver units must each be ordered separately. Use the Part Number Configuration Chart to generate a specific part number for each unit.

In addition, each box unit requires an external power supply. Power supplies should be specified as follows:

Power Supply: PDPS-1-pp

Power Supply Suffix Codes: (Line Cord)

pp:	
NA	North America
AU	Australia
EU	Europe
JP	Japan
UK	United Kingdom

Flex System Configuration Example F1T=Transmitter F1R=Receiver F1X=Transceiver 1. # of Fibers Data Slots A & B (Both slots require a #) 1 = 1 fibers 2 = 2 fibers 0 = None 1 = RS-232 Note: 2 fiber syste may only be order 2-way systems. Tr vire point-to-point) 2 = RS-422/485 systems always begin with "F1X." (2-wire) 3 = RS-485 2. Case Style vire multidrop) 4 = RS-485 B = Box (stand alone) C = Rack Card Module 5 = Contact Closure te: Card fits within 6000A rd Cage. 7. Audio Strapping 3. Operating Wavelength N = No Audio B = Balanced For one-way systems, or two-way/two-fiber system: 1 = 850 nm, MM 3 = 1310 nm, MM 7 = 1310 nm, SM 9 = 1550 nm, SM U = Unbalanced 6. Audio Options 0 = None For F1T or F1X systems: 1 = 2 Channel Transmit 2 = 4 Channel Transmit For two-way/one-fiber systems, Must be ordered as 2&4 or 6&8 pair. 2 = 850/1310 nm, MM 4 = 1310/850 nm, MM 6 = 1310/1550 nm, SM For F1R or F1X systems: 3 = 2 Channel Receive 4 = 4 Channel Receive 8 = 1550/1310 nm. SM For FIX systems: 5 = 2 Channel Transmit (Ch. 182) and 2 Channel Receive (Ch. 384) 6 = 2 Channel Receive (Ch. 182) and 2 Channel Transmit (Ch. 384) 4. Fiber Optic Connectors F = FCPC S = ST 5. Video Options 0 = None(F1T or F1X) 1 = Transmit (F1R or F1X) 2 = Receive

> Transmit and Receive

3=

Signal	Channels	Direction
Video	1	\longleftrightarrow or \longrightarrow
Audio	2 or 4	\longrightarrow or \longrightarrow
Data or Contact	1 or 2	→ or →

Features

Each unit is custom-ordered and assembled.

Each transmitter, receiver and transceiver unit is sold separately. Power supplies are also sold separately.

Signal options include:
One channel of video in one or both directions

Two or four independent audio channels; four in one direction or two in each direction

Two slots for either data or contact closure signals in one or both directions

Transmits over multimode or single mode fiber at 850, 1310 or 1550 nm

Bi-directional systems available in one or two-fiber versions

Pure digital processing and transmission

Video channel is compatible with NTSC, PAL or SECAM video standards

Audio channels may be user-configured independently to have either balanced or unbalanced inputs and outputs

Indicator LEDs monitor signals and power

Wide range power supply allows operation from low voltage AC and DC sources

Card version fills two slots in 6000A rack



Video Specifications	
Number of Channels	1, one-way or bidirectional
Frequency Response	20 Hz to 8 MHz (+0, -3 dB) 50 Hz to 5 MHz (+/- 0.2 dB)
Input/Output Impedance	75 Ohms
Input/Output Voltage:	1 V p-p nom., 1.3 V p-p max.
Signal-to-Noise Ratio	60 dB (CCIR weighted)
Differential Gain and Phase	1% typical; 1° typical
Video Connectors	BNC
Audio Specifications	

Audio Specifications	
Number of Audio Channels	2 or 4 one-way or 2 bidirectional (balanced or unbalanced)
Frequency Response	20 Hz to 20 kHz (+0, -3 dB)
Input/Output Impedance	600 Ohms terminated; >24 k Ohms unterminated
Input/Output Voltage	0 dBu nom. +10 dBu max.
Signal-to-Noise Ratio	85 dB
THD+N	0.1% typical
Audio Connectors	Removeable terminal block

Data/PIZ and Contact Closu	ire Specifications
Number of Channels	2, which may be used for 2 data channels, 2 contact closure channels, or one of each
Data Protocols Supported	RS-232, RS-422, RS-485 (2 or 4-wire)
Data Rate	DC to 115 kb/s
Contact Closure Input	Dry contact or TTL level referenced to GND
Contact Closure Output	Isolated reed relay contacts; 115 Volts AC; 50/60 Hz @ 0.2 A or 24 Volts DC @ 1 A
Data and Contact Closure Connectors	Removeable terminal block

.ED Indicators	Power; Signal Present (Link); Alarm LED (card version only)
Power Requirements*	9-24 volts AC or DC, 6 watts
Operating Temperature Range	-35° to +75° C
Optical Connectors	ST or FCPC
Physical Size	5.1 W x 1.25 H x 7.25 L (inches) 127 W x 32 H x 184 L (mm)
Weight	approx. 1 lb.; 0.45 kg
Slots Filled in 6000A Card Cage	2



Flex System



Operating Loss Budget & Maximum Usable Distance*

G. III G.		
Wavelength	Loss(dB)	Distance (km)
2-way over 2 fib	ers and 1-w	ay systems
850 MM	0-15	0-3
1310 MM	0-12	0-11
1310 SM	0-28	0-70
1550 SM	0-26	0-85
2-way over 1 fib	er systems	
850/1310 MM	0-11	0-3
1310/850 MM	0-11	0-3
1310/1550 SM	1 0-25	0-60
1550/1310 SM	1 0-25	0-60
SM = Single	Mode Fiber	
MM = MultiN	Node Fiber	
*Distance specifications are o budget must not be exceeded		e not guaranteed. Operating loss



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



UPDATED 2/6/2009







3334 Video Multiplexer Series with Two-Way Data

10 Channel Composite Video Multiplexer with bi-directional data over one single mode or multimode fiber

Ideal Applications:

Security, Remote Monitoring, Command and Control Centers





Cameras Monitors (up to 10) (up to 10) 10 Channel Tx 10 Channel Rx Video & Data Data

signals on one fiber

Supports one bi-directional data channel for RS-232, RS-424 or RS-485

Versions for multimode or single mode fiber

No adjustments; pure digital processing and transmission

Full color, uncompressed, real-time transmission in NTSC, PAL or SECAM

Built-in diagnostic LEDs for each channel and a loss of signal/broken fiber alarm

Internal, universal power supply with AC line cord

One rack unit high (1.75 inches). Rackmount ears included with unit

PTZ Controller

Ordering Information

Part Number	Description	Fiber Cores
3334-Sy-pp	Transmitter	1
3335-Sy-pp	Receiver	1

Part Number Suffix Codes:

y: 7 - Single Mode

5 - Multimode

pp: NA - North America AU - Australia EU - Europe

JP - Japan UK - United Kingdom

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Video Specifications	
Number of Channels	10
Number of Fibers	1
Video Bandwidth (all channels at rated distance)	10 Hz - 6.5 MHz (-3 dB)
Video Input	1 volt p-p
Input/Outut Impedance	75 Ohms
Differential Gain	<1.5% typical
Differential Phase	<1 degree typical
Signal-to-Noise Ratio	>63 dB (CCIR weighting)
Video Connectors	BNC
Data Specifications	
Number of Channels	1 (bi-directional)
Interfaces Supported	RS-232, RS-424, RS-485 2 Wire & 4 Wire Switch Selectable
Maximum Data Rate	100 Kbps
Protocols	NRZ, NRZI, RZ, Manchester, Bi-phase
Data Connectors	Screw Terminal Block
General Specifications	
Operating Wavelength	Video & Data: 1310 nm Return Data (SM): 1550nm Return Data (MM): 850nm
Optical Connectors	ST
Operating Temperature	0 to +55 degrees C
Relative Humidity	10% - 90% (non-condensing)
Operating Power	95-250 VAC, 47-63 Hz
Size	1.75 H x 16.75 W x 10 D (inches) 44 H x 425 W x 254 D (mm)
Weight	Approx. 5.5 lbs; 2.5 kg
Fiberlink Matrix Compatibe	No

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3334 Video Multiplexer Series with 2-Way Data



Operating Loss Budget & Maximum Usable Distance*

WavelengthLoss(dB)**Distance (km)SM0-1850MM (50u)0-141.3MM (62.5u)0-181.0

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.



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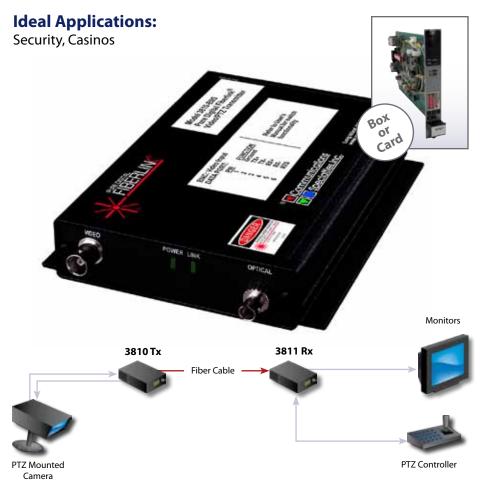
UPDATED 7/28/2010





3800 Composite Video Series

Composite video and bidirectional data transmitted digitally over one or two fibers



Part Number	Description	Fiber Cores
3810-Bxy	Transmitter, Box Version	1
8810-Cxy	Transmitter, Card Version	1
3811-Bxy	Receiver, Box Version	1
3811-Cxy	Receiver, Card Version	1
3820-Bxy	Transmitter, Box Version	2
3820-Cxy	Transmitter, Card Version	2
3821-Bxy	Receiver, Box Version	2
3821-Cxy	Receiver, Card Version	2
PDPS-1-pp	Power Supply	

Power Supply Suffix Codes (pp) for AC Line Cord:

1550 nm Single Mode

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Part Number Suffix Codes:

9

x:	1	850 nm Multimode	y:	S	ST Connector
	3	1310 nm Multimode		F	FCPC Connector
	7	1310 nm Single Mode			

Signal	Channels	Direction
Video	1	→
Data	1	\longleftrightarrow

Features

Transmits over multimode or single mode fiber at 850, 1310 or 1550 nm using one or two fibers

No adjustments; pure digital processing and transmission

8 MHz video bandwidth

Video channel is compatible with NTSC, PAL or SECAM video standards

Bidirectional data channel supports RS-232, RS-422 and RS-485 protocols for use with most PTZ systems. Transmitter and receiver may be configured differently

Built-in diagnostic LEDs for video signal, data signal and power

Wide range power supply allows operation from low voltage AC and DC sources

System consists of transmitter and receiver unit; card or box version. Each end, plus power supply, must be purchased separately

Card version fills one slot in 6000A card cage



8 MHz (-3 dB)
75 Ohms
1V p-p nom., 1.1V p-p max.
1.5 %
1.0° typical
60 dB CCIR weighted typical
BNC
115 Kb/sec, max.
RS-232, RS-422, RS-485 (2-wire and 4-wire), switch selectable
NRZ, NRZI, RZ, Manchester, Bi-phase
Terminal Block
850, 1310 and 1550 nm
1 or 2
Optical: ST and FCPC;
-35° to +74° C
10% - 90% (non-condensing)
9-24 volts AC or DC, 5 watts
1.2 H x 5 W x 7 D (inches) 30 H x 127 W x 178 D (mm)
approx. 1 lb.; 0.45 kg



3800 Composite Video Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength One Fiber Version	Loss(dB)	Distance (km)		
1310 MM	0-10	0-4		
1310 SM	0-19	0-45		
1550 SM	11-26	40-65		
Two Fiber Version				
850 MM	0-16	0-2		
1310 MM	0-15	0-15		
1310 SM	0-20	0-50		
1550 SM	11-28	35-90		

sm = Single Mode Fiber mm = MultiMode Fiber



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Slots Filled in 6000A Card Cage

* For operation from 95-250 VAC, 50/60 Hz, a PDPS-1 plug-in adapter is required

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UPDATED 2/6/2009



^{*} Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

Video and Audio



7820 HD/SD Component, S-Video, Composite Video Series

HD/SD Component video with stereo audio, or S-Video and Composite video with stereo audio, or three channels of Composite Video with stereo audio

Ideal Applications:

Videoconferencing, Broadcast and Cable TV, Digital Signage

One unit, three modes of operation!

Over one single mode or multimode fiber, you can transmit:

• One Component Video & Stereo Audio



Component, S-Video, Composite	7820 Tx	7821 Rx	Component, S-Video, Composite Video
Video ——— 2 channels ——— of Audio	-	Fiber Cable	2 channels of Audio

Part Number	Description	Fiber Cores
7820-B7S	Transmitter, Box Version	1
7820-C7S	Transmitter, Card Version	1
7821-B7S	Receiver, Box Version	1
7821-C7S	Receiver, Card Version	1
PDPS-1-pp	Power Supply	

EU - Europe

NA - North America AU - Australia JP - Japan **UK - United Kingdom**

Signal	Channels	Direction
Video	1 to 3	
Audio	2	→

Features

30 MHz Component Video bandwidth

15 MHz Composite and S-Video bandwidth per channel

Supports 1080i and 720p Component Video

Video channel is compatible with NTSC, PAL or SECAM video standards

Two audio channels that may be user-configured for balanced or unbalanced inputs and outputs

Switch selectable audio output gain boost of +0 dB or +6 dB

Indicator LEDs monitor power, video and audio signals

Transmits over one multimode or single mode fiber

No adjustments; pure digital processing and transmission

Wide range power supply allows operation from both AC and DC sources

System consists of transmitter and receiver unit; card or box version. Each end, plus power supply, must be purchased separately.

Card version fills two slots in 6000A card cage



Video Specifications	
Frequency Response Composite & S-Video: Component Video:	15 MHz (-3 dB) Y: 30 MHz (-3dB) PrPb: 15 MHz (-3dB)
Input/Output Impedance	75 Ohms, nominal
Signal-to-Noise Ratio	60 dB (CCIR weighted)
Differential Gain	0.7%
Differential Phase	0.5°
Y/C Delay	< 5 ns
2T K-Factor	0.5%
System Gain	Unity Gain, ± 3%
Video Connectors	BNC; 4-Pin Mini-DIN for S-Video

Audio Specifications	
Number of Audio Channels	2, balanced or unbalanced
Bits per sample/ Sampling Rate	24 bits, 64 kHz
Audio Connector	Screw terminal block
Switches	 Select input termination Balanced or unbalanced input/output, selectable on a per-channel basis Output gain boost +0 dB or +6 dB
Frequency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Maximum Audio Level	+10 dBu
Signal-to-Noise Ratio (A-weighted)	95 dB referenced full scale (balanced)
THD	0.002%, 20Hz - 20 kHz, full scale
Channel Phase Differential	±0.1°
Crosstalk	-100 dB (1kHz)
Audio Noise Level	-85 dBm
System Gain	Unity Gain, ±3%, input: balanced 600 ohms, 50 ohms source impedance; output: balanced into 600 ohms, gain boost 0 dB.
Receiver Output Gain	+0 dB or +6 dB; switch selectable
Input Impedance	600 Ohms terminated, >24K ohms unterminated
Output Impedance	50 Ohms nominal
Audio to Video Diff. Delay (skew)	<300 usec

General	Specifications
Three mode	s of transmit operation

Three modes of transmit operation:	One Component Video & Stereo Audio One S-Video, one Composite Video and Stereo Audio Three Composite Video & Stereo Audio
Compatibility	Fiberlink Matrix
LED Indicators	(1) Power, (3) Video, (1) Audio, (1) Alarm LED (card version only)
Power	9-24 volts AC or DC, TX: 4.5 Watts; 15.39 BTU/Hr RX: 4.0 Watts; 13.68 BTU/Hr
Operating Temperature Range	-10° to +60° C
Optical Connectors	ST
Operating Wavelength	1310nm
Physical Size	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)
Weight	approx. 1 lb.; 0.45 kg
Slots Filled in 6000A Card Cage	2



7820 Series HD/SD Component, S-Video, Composite Video



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
SM	0-17	40
MM (50u)	0-17	1.3
MM (62.5u)	0-17	1.0

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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UPDATED 1/15/2010





3620A Composite Video Series

Composite video and two audio channels transmitted digitally over one single mode or multimode fiber

Ideal Applications:

Videoconferencing, Broadcast and Cable TV, Digital Signage



Composite Video ——	3620A Tx	3621A Rx	Composite Video
2 channels of Audio	Fiber	Cable -	2 channels of Audio

Part Number	Description	Fiber Cores
3620A-B7S	Transmitter, Box Version	1
3620A-C7S	Transmitter, Card Version	1
3621A-B7S	Receiver, Box Version	1
3621A-C7S	Receiver, Card Version	1
PDPS-1-pp	Power Supply	

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Channels	Direction
1	→
2	→
	Channels 1 2

Features

10 MHz video bandwidth

Video channel is compatible with NTSC, PAL or SECAM video standards

Two audio channels that may be user-configured for balanced or unbalanced inputs and outputs

Switch selectable audio output gain boost of +0 dB or +6 dB

Indicator LEDs monitor power, video and audio signals

Transmits over one multimode or single mode fiber

No adjustments; pure digital processing and transmission

Wide range power supply allows operation from both AC and DC sources

System consists of transmitter and receiver unit; card or box version. Each end, plus power supply, must be purchased separately.

Card version fills one slot in 6000A card cage



Video Specifications	
Frequency Response	10 MHz (-3 dB), ±0.2 dB to 5 MHz
Input/Output Impedance	75 Ohms, nominal
Signal-to-Noise Ratio	60 dB (CCIR weighted)
Differential Gain	0.5%
Differential Phase	0.5°
Y/C Delay	< 10 ns
2T K-Factor	0.5%
System Gain	Unity Gain, ± 3%
Video Connector	BNC
Adi- Cifti	

Audio Specifications	
Number of Audio Channels	2, balanced or unbalanced
Bits per sample/ Sampling Rate	24 bits, 52 kHz
Audio Connector	Screw terminal block
Switches	 Select input termination Balanced or unbalanced input/output, selectable on a per-channel basis Output gain boost +0 dB or +6 dB
Frequency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Maximum Audio Level	+10 dBu
Signal-to-Noise Ratio (A-weighted)	95 dB referenced full scale (balanced)
THD	0.002%, 20Hz - 20 kHz, full scale
Channel Phase Differential	±0.1°
Crosstalk	-100 dB (1kHz)
Audio Noise Level	-85 dBm
System Gain	Unity Gain, ±3%, input: balanced 600 ohms, 50 ohms source impedance; output: balanced into 600 ohms, gain boost 0 dB.
Receiver Output Gain	+0 dB or +6 dB; switch selectable
Input Impedance	600 Ohms terminated, >24K ohms unterminated
Output Impedance	50 Ohms nominal
Audio to Video Diff. Delay (skew)	<300 usec

General Specifications	
Compatibility	Fiberlink Matrix & 3620A Series
LED Indicators	Power, Video, Audio, Alarm LED (card version only)
Power	9-24 volts AC or DC, 3.5 watts 11.94 BTU/Hr (Transmitter or Receiver)
Operating Temperature Range	-10° to +60° C
Optical Connectors	ST
Operating Wavelength	1310nm
Physical Size	5 W x 1.15 H x 5.25 L (inches) 127 W x 29 H x 133 L (mm)
Weight	approx. 10 oz.; 0.284 kg
Slots Filled in 6000A Card Cage	1
Slots Filled in 6000A Card Cage	1



3620A Composite Video Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
SM	0-17	40
MM (50u)	0-20	7.5
MM (62.5u)	0-20	5

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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UPDATED 04/22/2010





7140 Video Series

Four uncompressed video channels and eight independent audio channels all transmitted digitally over a single fiber

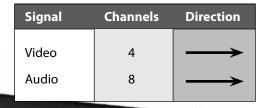
Ideal Applications:

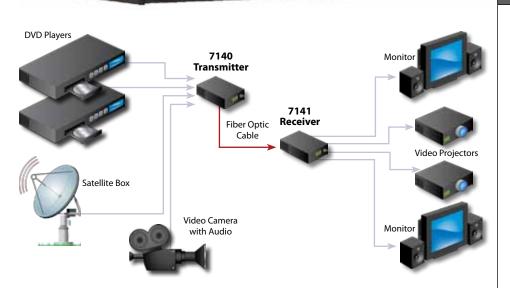
Multi Camera Classrooms, Distance Learning / Videoconferencing Broadcast

CHANNEL 1

AUDIO CONFIG

1234





Ordering Information

Part Number	Description	Fiber Cores
7140-xy-pp	Transmitter	1
7141-xy-pp	Receiver	1

Part Number Suffix Codes:

x:	1	850 nm Multimode	у:	S	ST Connector
	3	1310 nm Multimode	•	F	FCPC Connector
	7	1310 nm Single Mode			

9 1550 nm Single Mode

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia
JP - Japan UK - United Kingdom

EU - Europe

Features

Transmits over multimode or single mode fiber at 850, 1310 or 1550 nm

System consists of transmitter and receiver unit

No adjustments; pure digital processing and transmission

7 MHz video bandwidth

Video channel is compatible with NTSC, PAL or SECAM video standards

18-bit audio sampling; 20 Hz to 20 kHz audio bandwidth

Audio channels may be configured independently by the user to have either balanced or unbalanced inputs and outputs

Indicator LEDs monitor video signals, audio signals and power

Universal input internal power supply

Unit stands 1 RU high. Rackmount ears are included



Video Specifications	
Number of channels	4
Video Bandwidth (per channel)	7 MHz (-3 dB)
Input/Output Impedance	75 Ohms
Normal Input/Output Voltage	1V p-p nom., 1.1V p-p max.
Differential Gain	1%
Differential Phase	0.5 degree typical
Signal-to-Noise Ratio	62 dB CCIR weighted typical
Video Connectors	BNC
Audio Specifications	

Audio Specifications	
Number of channels	8, balanced or unbalanced
Frequency Response (per channel)	20 Hz to 20 kHz (-3 dB)
Input Impedance	600 Ohms terminated; >24 k Ohms unterminated
Output Impedance	50 Ohms
Normal Input/Output Voltage	0 dBu nom., +10 dBu max.
Signal-to-Noise Ratio	85 dB
THD+N	0.1% typical
Audio Connectors	Screw terminal block
Switches	Dip switches to select input termination, balanced or unbalanced input/output. Selectable on a per-channel basis

General Specifications		
LED Indicators	Power; Video Present (per channel); Audio Present (per channel)	
Power Requirements*	95-250 volts AC, 47-63 Hz	
Operating Temperature Range	0° to +55° C	
Optical Connectors	ST or FCPC	
Operating Wavelength	850, 1310 or 1550 nm	
Physical Size	1.75 H x 16.75 W x 10 D (inches) 44 H x 425 W x 254 D (mm)	
Weight	5lbs; 2.2kg	



7140 Video Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
850 MM	0-20	075
1310 MM	0-25	0-2
1310 SM	0-23	0-55
1550 SM	0-25	0-80

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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UPDATED 2/6/2009

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7130 Wideband Video Series

15 MHz wideband video with four independent audio channels, digitally transmitted over one fiber



Program Video Program Audio 1 Program Audio 2 Program Audio 3 Program Audio 4	7130 Tx Fiber Ca	7131 Rx	Program Video Program Audio 1 Program Audio 2 Program Audio 3 Program Audio 4
---	------------------	---------	---

Ordering Information		
Part Number	Description	Fiber Cores
7130-Byz	Transmitter, Box Version	1
7130-Cyz	Transmitter, Card Version	1
7131-Byz	Receiver, Box Version	1
7131-Cyz	Receiver, Card Version	1
PDPS-1-pp	Power Supply	

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Part Number Suffix Codes:

1550 nm Single Mode

y: 1 850 nm Multimode z: S ST Connector
3 1310 nm Multimode F FCPC Connector
7 1310 nm Single Mode

Signal	Channels	Direction
Wideband Video	1	→
Audio	4	→

Features

Transmits over one multimode or single mode fiber at 850, 1310 or 1550 nm

Pure digital processing and transmission

10-bit video sampling; 15 MHz video bandwidth; broadcast quality

Video channel is compatible with NTSC, PAL or SECAM video standards

24-bit audio sampling @ 62.5 kHz; 20 Hz to 20 kHz audio bandwidth

Audio channels may be configured independently by the user to have either balanced or unbalanced inputs and outputs

Indicator LEDs monitor signals and power

Wide range power supply allows operation from low voltage AC and DC sources

System consists of transmitter and receiver unit; card or box version. Each end, plus power supply, must be purchased separately.

Card version fills one slot in the 6000A card cage



Video Specifications	
Number of quantizing bits	10
Frequency Response	15 MHz (-3dB), +0.1 dB to 8 MHz
Input/Output Impedance	75 Ohms
Signal-to-Noise Ratio	67 dB per RS-250C
Differential Gain	0.7%
Differential Phase	0.5 degree
Video Gain Adjust	+/-4%
Y/C Delay	4 ns
2T K-Factor	0.4%
Video Connectors	BNC
Ali- C:Eti	

Audio Specifications	
Number of Audio Channels	4, balanced or unbalanced
Frequency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Bits-per-Sample/Sampling Rate	24 bits; 62.5 kHz
Maximum Audio Level	+24 dBu
SNR (A-Weighted)	95 dB
THD+N	0.002%, 20 Hz - 20 kHz
Channel Phase Differential	+/-0.1°
Crosstalk	min. 95 dB (1 kHz)
Input Impedance	600 Ohms terminated; >24 k Ohms unterminated
Output Impedance	50 Ohms
Audio Connectors	Screw terminal block
Switches	DIP switches to select input termination, balanced or unbalanced input/output. Selectable on a per-channel basis

General Specifications		
LED Indicators	Power; Video/Audio Present; Alarm LED (card version only)	
Power Requirements*	9-24 volts AC or DC, 5 watts	
Operating Temperature Range	-35° to +70° C	
Optical Connectors	ST or FCPC	
Physical Size	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)	
Weight	approx. 1 lb.; 0.45 kg	
Slots Filled in 6000A Card Cage	1	



7130 Wideband Video Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
850 MM	0-20	075
1310 MM	0-24	0-2
1310 SM	0-23	0-55
1550 SM	0-25	0-80

SM = Single Mode Fiber MM = MultiMode Fiber

 $^*\!\text{Distance}$ specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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UPDATED 2/6/2009







3134 Video Multiplexer Series

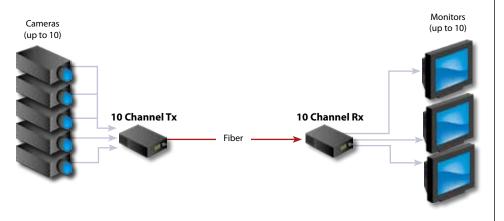
10 Channel Composite Video Multiplexer over one single mode or multimode fiber

Ideal Applications:

Security, Remote Monitoring, Command and Control Centers

Signal	Channels	Direction
Video	10	→





Multiplexes up to 10 composite video signals on one fiber

Compatible with multimode or single mode fiber

No adjustments; pure digital processing and transmission

Full color, uncompressed, real-time transmission in NTSC, PAL or SECAM

Built-in diagnostic LEDs for each channel and a loss of signal/broken fiber alarm

Internal, universal power supply with AC line cord

One rack unit high (1.75 inches). Rackmount ears included with unit

Fiberlink Matrix Compatible

Part	Number	Description	1	Fiber Cores
3134	1-S7-pp	Transmitter		1
3135	5-S7-pp	Receiver		1
Part	Number S	uffix Codes:		
pp:	NA - North JP - Japan	America	AU - Australia UK - United Kingdom	EU - Europe



Number of Channels	10
Number of Fibers	1
Video Bandwidth (all channels at rated distance)	10 Hz - 6.5 MHz (-3 dB)
Video Input	1 volt p-p
Input/Outut Impedance	75 Ohms
Differential Gain	<1.5% typical
Differential Phase	<1 degree typical
Signal-to-Noise Ratio	>63 dB (CCIR weighting)
Video Connectors	BNC
General Specifications	
Operating Wavelength	1310 nm**
Optical Connectors	ST
Operating Temperature	0 to +55 degrees C
Relative Humidity	10% - 90% (non-condensing)
Operating Power	95-250 VAC, 47-63 Hz
Size	1.75 H x 16.75 W x 10 D (inches) 44 H x 425 W x 254 D (mm)
	Approx. 5.5 lbs; 2.5 kg
Weight	



3134 Video Multiplexer Series



Operating Loss Budget & Maximum Usable Distance*

WavelengthLoss(dB)**Distance (km)SM0-2055MM (50u)0-201.3MM (62.5u)0-201.0

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.



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UPDATED 7/28/2010





7100 Wideband Video Series

15 MHz wideband video digitally transmitted over one fiber using 10-bit quantizing





Ordering Information			
Part Number	Description	Fiber Cores	
7100-Bxy	Transmitter, Box Version	1	
7100-Cxy	Transmitter, Card Version	1	
7101-Bxy	Receiver, Box Version	1	
7101-Cxy	Receiver, Card Version	1	
PDPS-1-pp	Power Supply		

Power Supply Suffix Codes (pp) for AC Line Cord:

1550 nm Single Mode

NA - North America	AU - Australia	EU - Europe
JP - Japan	UK - United Kingdom	

Part Number Suffix Codes:

x:

1	850 nm Multimode	y:	S	ST Connector
3	1310 nm Multimode		F	FCPC Connector
7	1310 nm Single Mode			

Signal	Channels	Direction
Wideband Video	1	→

Features

Transmits over one multimode or single mode fiber at 850, 1310 or 1550 nm

Pure digital processing and transmission

10-bit video sampling; 15 MHz video bandwidth; broadcast quality

Video channel is compatible with NTSC, PAL or SECAM video standards

Meets RS-250C short haul specification

Adjustable output video gain

Indicator LEDs monitor baseband signal and power

Wide range power supply allows operation from low voltage AC and DC sources

System consists of transmitter and receiver unit; card or box version. Each end, plus power supply, must be purchased separately.

Card version fills one slot in 6000A card cage



Video Specifications	
Number of quantizing bits	10
Frequency Response	15 MHz (-3dB), +/- 0.1 dB to 8 MHz
Input/Output Impedance	75 Ohms
Signal-to-Noise Ratio	67 dB per RS-250C
Differential Gain	0.7%
Differential Phase	0.5 degree
Video Gain Adjust	+/- 4%
Y/C Delay	4 ns
2T K-Factor	0.4%
Video Connector	BNC

LED Indicators	Power; Baseband Video Present; Alarm LED (card version only)
Power Requirements*	9-24 volts AC or DC, 7 watts
Operating Temperature Range	-35° to +70° C
Optical Connectors	ST or FCPC
Physical Size	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)
Weight	approx. 1 lb.; 0.45 kg
Slots Filled in 6000A Card Cage	1

 $^{^{*}}$ For operation from 95-250VAC, 50/60Hz, a PDPS-1 plug-in adapter is required.

About CSI

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Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



7100 Wideband Video Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
850 MM	0-20	075
1310 MM	0-25	0-2
1310 SM	0-23	0-55
1550 SM	0-25	0-80

SM = Single Mode Fiber MM = MultiMode Fiber

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UPDATED 2/6/2009





Beamer-V

Fiber optic transmission of composite video in a simple, low-cost system



Ideal Applications:

Security, A/V Confidence Monitoring

Signal	Channels	Direction
<i>3100/3101</i> Video	1	
<i>3108A/3109A</i> Video	Dual	→

Features

Transmits up to three kilometers over multimode fiber at 850 nm

8 MHz video bandwidth

May be purchased as a complete, low cost system including transmitter, receiver and two power supplies

Card version supports dual video channels

Card version fills one slot in 6000A card cage

Fiber is immune to the effects of electrical interference, ground loops, explosive and hazardous environments, moisture and high voltage

Ordering Information Part Number Description **Fiber Cores** 3100 **Transmitter Box** 3101 Receiver Box 1 Beamer-V System: Includes 3105-pp 1 Transmitter Box, 1 Receiver Box and 2 Power Supplies 1 3108A **Dual Channel Transmitter Card** 2 3109A 2 **Dual Channel Receiver Card** 119757 N. American Power Supply: 115 volts AC to 12 volts DC with connector 102202 European Power Supply: 230 volts AC to 9 volts DC with connector 119854 United Kingdom Power Supply: 230 volts AC to 9 volts DC with connector 121016 Japanese Power Supply: 100 volts AC to 9 volts DC with connector Power Supply Suffix Codes (pp): NA - North America AU - Australia EU - Europe UK - United Kingdom JP - Japan



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Video Specifications	
Number of Channels	1
Number of Outputs per Channel	Box: 1; Card: 2
Bandwidth	8 MHz
Input/Output Impedance	75 Ohms
Signal-to-Noise Ratio (per RS-250)	52 dB minimum
Differential Gain (per RS-250)	2% typical
Differential Phase (per RS-250)	1º typical
Input/Output Voltage	1 volt p-p (user adjustable at receiver)
General Specifications	

General Specifications	
Number of Fibers	Box: 1; Card: 2 (1 per channel)
Operating Temperature	-35 to +75° C
Relative Humidity	10 to 90%, non-condesnsing
Operating Power (per unit)	9-12 V ±10% DC @ 100 ma max.
Dimensions	3.25 L x 2.38 W x 1 H (inches) 83 L x 60 W x 25.4 (mm)
Weight	3.0 oz. (85.04 grams)
Optical Connectors	ST
Optical Wavelength	850 nm
Optical Fiber	62.5 micron multimode fiber

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Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



Beamer-V



Operating Loss Budget & Maximum Usable Distance*

Wavelength Loss(dB) Distance (km) 850 MM 0-12 0-3

 Distance specifications are only approximate and are not quaranteed. Operating loss budget must not be exceeded

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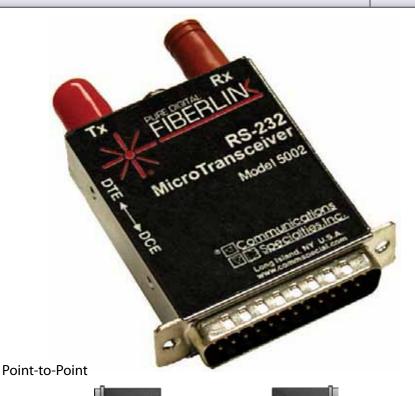






5002: RS-232 Micro Transceiver

Transmits RS-232 data over multimode fiber for simplex, duplex, asynchronous, point-to-point and drop-and-repeat operation



Ideal Applications:

Remote control, Telemetry, Digital signage

Signal	Channels	Direction
RS-232 Data	1	←→

Features

Miniature transceiver occupies no more space than a DB-25 connector

Transmits over standard multimode fiber at 850 nm

Supports distances up to 3.2 km

Adjustment-free

May be user-configured to either DCE or DTE mode

Supports simplex, duplex, asynchronous, point-to-point and drop-and-repeat operating modes

Operates with all data rates up to 120 Kbps

Quick and easy to install

Power supply must be purchased separately

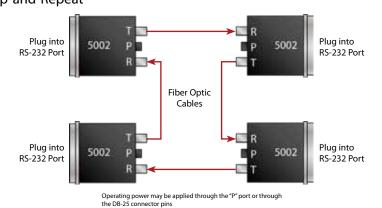
Drop-and-Repeat

NA - North America

JP - Japan

Plug into

RS-232 Port



Fiber Optic

Cable

Plug into

EU - Europe

RS-232 Port

5002

Ordering InformationPart NumberDescriptionFiber Cores5002-1Microtransceiver2119757Power SupplyPower Supply Suffix Codes (pp) for AC Line Cord:

AU - Australia

UK - United Kingdom



Data Specifications		
Operating Mode	Simplex, Duplex, Asynchronous Point-to-Point, Drop-and-Repeat	
Data Transmission Rate	DC to 120 Kbps	
Input Signal Voltage	±5 to ±10 volts per EIA RS-232D	
Output Signal Voltage	±5 to ±10 volts per EIA RS-232D	
General Specifications		
Number of Fibers	2	
Operating Temperature	-35 to +75° C	
Relative Humidity	10 to 90%, non-condesnsing	
Operating Power (per unit)	12 V <u>+</u> 10% DC @ 100 ma maximum	
Dimensions	2.1 x 1.7 x 0.55 (inches) 53 x 43 x 14 (mm)	
Weight	Approx. 1 lb.; .45 kg	
Connectors	Optical: ST; Signal: DB-25P (male)	
Optical Wavelength	850 nm	
Optical Fiber	62.5 micron multimode fiber	
ESD Protection	<u>±</u> 10 kV	



5002: RS-232 Micro Transceiver



Operating Loss Budget & Maximum Usable Distance*

Wavelength Loss(dB) Distance (km) 850 MM 0-15 0-3.2

MM = MultiMode Fiber

 Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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3 YEAR

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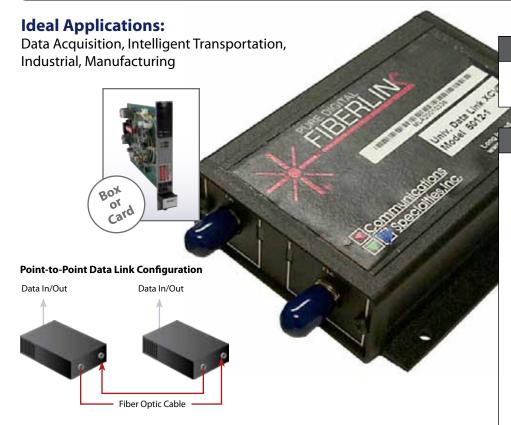
UPDATED 2/6/2009



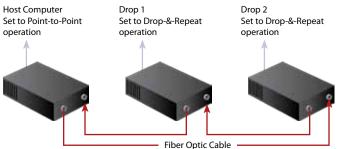


5012/5018A Universal Data Transceivers

RS-232/422/485 data transmitted digitally over single mode or multimode fiber



Ring or Loop Type Data Bus Configuration



Ordering Information			
Part Number	Description	Fiber Cores	
5012-1	Transceiver Box, 850 nm, MM fiber	2	
5018A-1	Transceiver Card, 850 nm, MM fiber	2	
5012-3	Transceiver Box, 1310 nm, MM fiber	2	
5018A-3	Transceiver Card, 1310 nm, MM fiber	2	
5012-7	Transceiver Box, 1310 nm, SM fiber	2	
5018A-7	Transceiver Card, 1310 nm, SM fiber	2	
PDPS-1-pp	Power Supply		

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Features

Signal

Data

Transmits over multimode or single mode fiber at 850 or 1310 nm

Channels

1

Direction

Transmits and receives all standard data-related signals in accordance with EIA specifications

Suitable for simplex, full duplex and drop-and-repeat operation

May be easily user-configured for the desired protocol, including mixed protocols. Transmitter and receiver may be configured differently

Adjustment free; all digital processing and transmission

Wide operating data rate, with lowspeed mode (DC up to 2.1 mbps; 200 Kbps for RS-232) and high-speed mode (10 Kbps - 10 mbps)

Extended ambient operating range

Data-derived or RTS transmit/receive switching (RS-485)

Indicator LEDS monitor signal and power

Card version fills one slot in 6000A card cage

RoHS Compliant



Low Spood Transmission Pate	DS 222 DC 200 Khasi
Low-Speed Transmission Rate	RS-232, DC-200 Kbps; RS-422/485, DC to 2.1 Mbps
High-Speed Transmission Rate	RS-422/485, 10 Kbps to 10 Mbps
Operating Modes	Simplex, duplex, asynchronous, drop-and-repeat, RTS or data derived T/R control (RS-485)
Compatibility	RS-232, RS-422, RS-485 (2 or 4-wire
Input Signal Voltage	\pm 5 to \pm 30 volts per EIA RS-232D 4.5 to 5 volts per RS-422, RS-485
Output Signal Voltage	\pm 5 to \pm 10 volts per EIA RS-232D 4.5 to 5 volts per RS-422, RS-485
C	
General Specifications	
Number of Fibers	2
Number of Fibers Operating Wavelength	2 850 or 1310 nm
Operating Wavelength	850 or 1310 nm Optical: ST: multimode; FC: singlemode Data: Removable screw-clamp type
Operating Wavelength Connectors	850 or 1310 nm Optical: ST: multimode; FC: singlemode Data: Removable screw-clamp type terminal block 10 to 18 volts DC @ 150 ma peak (connected via separate power
Operating Wavelength Connectors Operating Power (per unit)	850 or 1310 nm Optical: ST: multimode; FC: singlemode Data: Removable screw-clamp type terminal block 10 to 18 volts DC @ 150 ma peak (connected via separate power connector) -35 to +74° C Power, Transmit, Receive,
Operating Wavelength Connectors Operating Power (per unit) Operating Temperature Range	850 or 1310 nm Optical: ST: multimode; FC: singlemode Data: Removable screw-clamp type terminal block 10 to 18 volts DC @ 150 ma peak (connected via separate power connector) -35 to +74° C
Operating Wavelength Connectors Operating Power (per unit) Operating Temperature Range Indicator LEDs	850 or 1310 nm Optical: ST: multimode; FC: singlemode Data: Removable screw-clamp type terminal block 10 to 18 volts DC @ 150 ma peak (connected via separate power connector) -35 to +74° C Power, Transmit, Receive, Loss of Data Alarm on card version 3.5 W x 1.25 H x 4.75 L (inches)

About CSI

Slots filled in 6000A Card Cage

Note: The Universal Data Transceiver is ESD protected to +/-kV on all signal inputs and outputs

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5012/5018 Universal Data Transceivers



Operating Loss Budget & Maximum Usable Distance*

Loss(dB)	Distance (km)				
Low Speed Operation					
0-12 dB	0-4				
0-14 dB	0-14				
0-15 dB	0-35				
ration					
0-6 dB	0-2				
0-8 dB	0-8				
0-8 dB	0-20				
SM = Single Mode Fiber MM = MultiMode Fiber * Distance specifications are only approximate and are not quaranteed. Operating loss budget must not be exceeded.					
	0-12 dB 0-14 dB 0-15 dB ration 0-6 dB 0-8 dB 0-8 dB Mode Fiber ode Fiber re only approximate and a				

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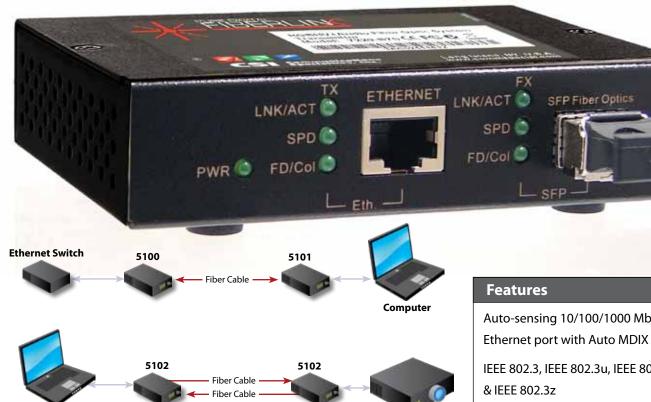


Gigabit Ethernet Transceiver

Transport 10/100/1000-BASE ethernet over 1 or 2 single mode or multimode fibers

Ideal Applications:

IT, Broadcast, Pro A/V and any application that requires reliable transmission of 10/100/1000 Ethernet data



Ordering	Information
----------	-------------

Computer

Part Number	Description	Fiber Cores	1000-Base-X
5100-B7L	Single Mode or Multimode (1310/1490 nm)	1	BX10-U
5101-B7L	Single Mode or Multimode (1490/1310 nm)	1	BX10-D
5102-B7L	Single Mode or Multimode (1310 nm)	2	LX/LH
5102-B1L	Multimode (850 nm)	2	SX
PDPS-3-pp	Power Supply for 5100 Series		

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia JP - Japan UK - United Kingdom EU - Europe

Projector

Auto-sensing 10/100/1000 Mbps

IEEE 802.3, IEEE 802.3u, IEEE 802.3az,

Full-duplex and half-duplex

LEDs indicate Link Activity, SPD, Fault **Detection/Collisions and Power**

Single mode & multimode versions available

One or Two fiber versions available

Compact design, wall mountable





Gigabit Ethernet Transceiver

Transport 10/100/1000-BASE ethernet over one or two single mode or multimode fibers

Transmission Distance & Loss Budgets					
Part Number	1000 Base-	Fiber Cores & Type	802 Distance Spec	CSI Loss Budget	CSI Typical Distance*
5100-B7L	BX10-U	1 SM or MM	SM 10km	15dB min (pair)	1k MM, 10km SM
5101-B7L	BX10-D	1 SM or MM	SM 10km	15dB min (pair)	1k MM, 10km SM
5102-B7L	LX, LH, LH10	2 SM or MM	MM 50u 550m, SM 10km	12dB min	1k MM, 10km SM
5102-B1L	SX	2 MM	MM 50u 550m, 62.5u 220m	9dB min	1k
*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.					

General Specifications	
Maximum Speed (1000Base-Tx/Fx)	Full Duplex: 2000Mbps Half Duplex: 1000Mbps
Packet Forwarding Rate	14880pps@10Mbps 148800pps@100Mbps 1488000pps@1000Mbps
Cabling/Maximum Distance	See chart above (longer distances on request)
Connectors	Copper: RJ-45(Auto-MDI / MDI-X) Fiber Optic: LC type
LEDs	TX: LINK/ACT, SPD, FD / COL FX: LINK/ACT, SPD, FD / COL Power
Launch Power/Receiver Sensitivity	1 Fiber SM: -8 dBm min / -23 dBm max 2 Fiber SM: -9 dBm min / -21 dBm max 2 Fiber MM: -9 dBm min / -18 dBm max
Power	Input 12V @ 300ma, 3.6 watts 12.28 BTU/Hr
Operating Temperature Range	0 to +50° Celcius
Operating and Storage Humidity	10% to 90% relative humidity (non-condensing)
Weight	2 pounds
Dimensions	4.25" x 3.14 " x 1.02" (108mm x 80mm x 26mm)



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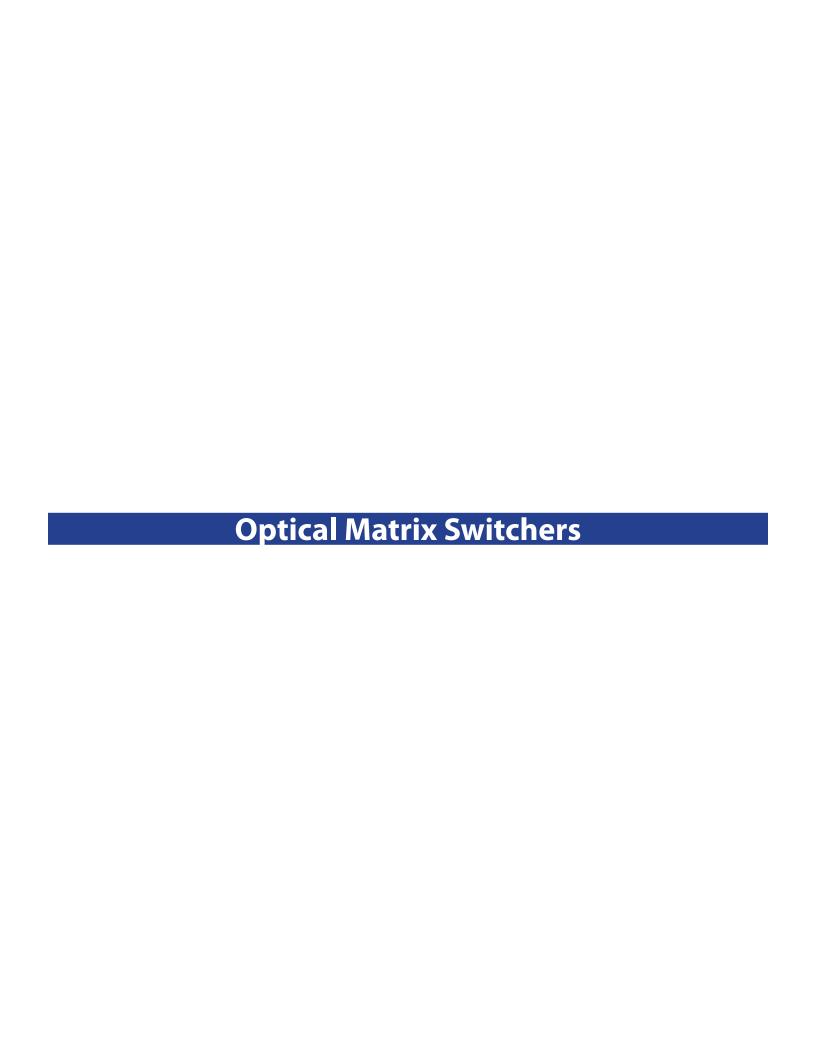


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UPDATED 1/29/2010







Fiberlink Matrix

Fully configurable optical matrix switch offering up to 32 inputs and 32 outputs selectable on a one by one basis.



Fiberlink Matrix populated with LC connectors

Fiberlink Matrix populated with ST connectors





Ordering Information

Part Number	Description	Fiber Cores
OM32c-aa-bb-z-pp	Fiberlink Matrix (32x32 max)	up to 32
OM16c-aa-bb-z-pp	Fiberlink Matrix (16x16 max)	up to 16

Front Panel Option (c)

P - Full Button Control N - No front panel button control

Input Quantity (aa)

OM32: 01 through 32 OM16: 01 through 16

Output Quantity (bb)

OM32: 01 through 32 OM16: 01 through 16

Optical Connector Type (z)

S - ST Connector Type L - LC Connector Type

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe

JP - Japan UK - United Kingdom

Features

Input and output quantities do not have to match. For example, if a project requires a 15x26 matrix, you can order a 15x26 Fiberlink Matrix.

Available with up to 32 optical inputs and 32 optical outputs

Support single mode or multimode fiber optic types with no changes required by the operator.

Mix and match single mode and multimode fiber types in one system.

Front panel preset store, recall, review and edit functionality

Supports pathological patterns

Reclocking of SMPTE SDI and CSI data rates.

Available with LC or ST connectors

Remote controllable via RS-232 and built in Ethernet based GUI

Compatible with third-party controllers

USB port allows for fast configuration of multiple matrices, facilitates firmware and GUI upgrades and configuration back-up

Dual color illuminated front panel keys make operation a snap

Optionally choose to eliminate the front panel key control and operate Fiberlink Matrix through its remote control ports only

Redundant power supplies

Small form factor: only 3RU high





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Optical Inputs	
Number to order	Independent of number of outputs OM32 - 1 to 32 inputs OM16 - 1 to 16 inputs
Data Rate	50 Mbps - 3.2 Gbps
Connector	LC or ST (must match output type)
Wavelength	1100 - 1620 nm
Fiber Types Supported	Multimode & Single Mode
Minimum Input Sensitivity	270 Mbps – -23 dB 1.485 Gbps – -20 dB 2.97 Gbps – -17 dB
Maximum Input Sensitivity	0 dBm
Pathological Signal Support	Yes, per SMPTE EG-34
SMPTE 297-2006 Compliant	Yes
Optical Outputs	
Number to order	Independent of number of inputs OM32 - 1 to 32 inputs OM16 - 1 to 16 inputs
Data Rate	50 Mbps - 3.2 Gbps
Connector	LC or ST (must match input type)
Wavelength	1310 nm, nominal, FP laser Other wavelengths and output power available via special order
Fiber Types Supported	Multimode & Single Mode
Output Power	-3.5 dBm, +/- 0.5 dB
Pathological Signal Support	Yes, per SMPTE EG-34
SMPTE 297-2006 Compliant	Yes
Re-clocked Data Rates	All SMPTE 3G/HD/SD-SDI data rates to 2.97 Gbps All CSI Fiberlink data rates for compatible products listed within
Operating Features	
Preset Store, Recall Review & Edit	Up to 32 (OM16) or 64 (OM32) presets may be stored and recalled from the front panel, RS-232 or GUI.
	A preset consists of one or more I/O paths and can be edited with or without executing an I/O switch
USB Port	A front panel USB port is used for the external storage of presets and matrix configuration. It's also used for upgrade of the product firmware.
Status Monitoring	Front panel and GUI monitor of I/O and laser status Recall of current and preset paths Internal Temperature through GUI
Control	RS-232, 10/100 Base-T Ethernet with internal GUI. Optional front panel. Compatible with third-party controllers

CSI Product Compati	bility		
The following CSI products are compatible with Fiberlink Matrix when operating at the 1100 - 1620 nanometer range:			
Scan Do [®] HD - 1297	Scan Do [®] HD - 1298		
3150 Series	335x Series		
3360 Series	3380 Series		
3400 Series	3440 Series		
3620 Series	4040 Series		
4160 Series	4320 Series		
5100 Series (2 Fiber)	7030 Series		
7040 Series	7050 Series		
7060 Series	7070 Series		
7100 Series	7130 Series		
7140 Series	722x Series		
7242 Series	7250 Series		
7820 Series	8000 Series		
8100 Series			
Flex Series (1 Way & 2 Fibe	r for bi-directionality)		
General Specification	ns.		
Input Voltage Range	95 - 250 volts AC, 47 -63 Hz		
OM32 Power	57 Watts, 179 BTU/Hr		
OM16 Power	39 Watts, 123 BTU/Hr		
Dimensions: (inches) (mm)	Without rackmount ears: 16.75 W x 5.25 H x 14 D 425 W x 134 H x 356 D Occupies 3 RU		
Operating Temperature	-10 C to +45 C		
MTBF	OM32 – 32,000 hours OM16 – 38,000 hours		
Maria Indiana di Amerika	10 11 - 5 46 1 -		



12 lbs, 5.46 kg

Firmware upgradeable by user.

I/O ports are factory upgradable only.

Weight (maximum)

Upgradeable:

Optional Accessories



Fiberlink® 6610 Visible Light Source

The Fiberlink® Visible Light Source provides a visible 650 nm laser output that can be used for identifying fiber breaks and individual fibers within fiber bundles, allowing for convenient, on-site testing of fiber networks during construction and maintenance procedures.



32x32 Optical Matrix Switch





Fiberlink® 6615 Optical Power Meter

The Fiberlink® Optical Power Meter measures the power of optical signals at 850, 980, 1310 and 1550 nm wavelengths, allowing for convenient, on-site testing of fiber networks during construction and maintenance procedures. It can be used to measure the power of an optical signal reaching the receiving end of a fiber optic cable, as generated either by a transmitter unit or by a light source such as the 6620.

Want to learn more about fiber?

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Fiberlink® 6620 Three Wavelength Light Source

The Fiberlink® Three Wavelength Light Source offers a laser output at wavelengths of 1310 and 1550 nm and VCSEL output at 850 nm, allowing for convenient, on-site testing of fiber networks during construction and maintenance procedures.



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



UPDATED 05/13/2010





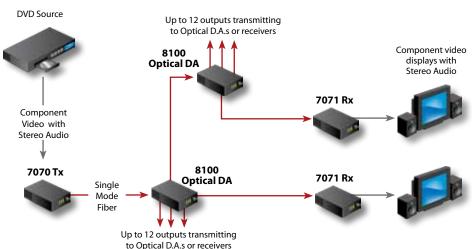


Twelve output optical D.A. works with one-way Fiberlink systems, providing infinite signal extension and distribution options

Ideal Applications:

Digital signage, broadcast or corporate studios, auditoriums, stadiums and theaters, airport or transportation hubs, distance learning, surgical or medical imaging and more!





Ordering Information			
Part Number	Description		
8102pp-yzw	Configured for 2 output		
8104pp-yzww	Configured for 4 outputs		
8106pp-yzwww	Configured for 6 outputs		
8108pp-yzwwww	Configured for 8 outputs		
8110pp-yzwwwww	Configured for 10 outputs		
8112pp-yzwwwwww	Configured for 12 outputs		

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Part Number Suffix Codes:

w: Output Optical Wavelength/Mode/Connector

J 850 nm, MM, ST

K 850 nm, MM, FC

L 1310 nm, MM, or SM, ST

M 1310 nm, MM, or SM, FC

N 1310 nm, MM or SM, ST High Speed P 1310 nm, MM or SM, FC High Speed

Q 1550 nm, MM or SM, ST R 1550 nm, MM or SM, FC y: Input Optical Wavelength/Mode

8 850 nm, MM

3 1310/1550, MM or SM

z: Input Connector

S ST connector

F FCPC connector

Signal	Channels	Direction
All types	2 to 12 DA	\rightarrow

Features

Receives an optical signal from a Fiberlink transmitter; then digitally regenerates and relaunches it over two to 12 outputs

Works with one-way Fiberlink systems*; can support multiple channels on each output

Units may be daisy-chained to create elaborate distribution networks

Absolutely no degradation to original baseband signals

Inputs and outputs configured separately; configured in sets of two

Works with multimode or single mode fiber at 850, 1310 or 1550 nm

Stand-alone box with internal power supply

Rackmount ears provided for mounting in standard 19" rack. 1RU high

*See chart on reverse side for wavelength compatibility.

For operating Loss Budgets and Maximum Usable Distance, please see the 8000 & 8100 Loss Budgets Data Sheet





Compatability Chart

The following chart indicates which Fiberlink® systems can interface with the 8100 Series units. Note that when multiple ODA's are cascaded together, signal compatibility is a function of the Transmitter and Receiver units being used on each end of the system.

Can Receive: Can't Receive:

0

8100 O.D.A.s can RECEIVE the following inputs from Fiberlink Transmitter units:

Tx Output				
to D.A.	850nm MM	1310 nm MM	1310 nm SM	1550nm MM/SM
3132				
3400		•		
3440		0	0	0
4040				
4160				
4320				
7030			•	
7040			•	
7050				
7060			•	
7070	0	•	•	
7100	•	•	•	
7130			•	
7140	0	•	•	
7220/2/4/6	0	•	•	
7242	Ö	•	•	
7250*	Ō	•	•	0
8000		•	•	•
8100		•	•	•
Flex	•	•	•	

8100 O.D.A.s can TRANSMIT the following outputs to Fiberlink Receiver units:

D.A. Output				
to Rx	850nm MM	1310 nm MM	1310 nm SM	1550nm MM/SM
3133				
3401				
3441		0	0	0
4041				0
4161				0
4321				Ö
7031				
7041			•	•
7051			•	•
7061	•	•	•	•
7071	•	•	•	•
7101		•	•	•
7131	•	•	•	•
7141	•	•	•	•
7221/3/5/7	0	•	•	•
7243	0	•	•	•
7251*	0	•	•	0
8000		•	•	•
8100				
Flex	•	•	•	0

* The 7250 Series is a two fiber system. You will need two 8100 ODA's.

General Specifications

The 8100 Series Optical D.A. does not have any video, audio or data specifications of its own. These baseband specifications are a function of the Fiberlink system that is being used in conjunction with the 8100 Series. Refer to the respective product data sheets for complete information.

It should be noted that when using an 8100 Series O.D.A., operating loss budget and maximum usable distance will vary from that specified on the individual product data sheets. A supplement to this data sheet, featuring a complete listing of loss budgets, is available online. Or, you may contact CSI's sales department for assistance.

Operating Wavelength	850, 1310 and/or 1550 nm
Number of Fibers	1 in; 2 to 12 out
Signal Connectors	ST and/or FCPC
LED Indicators	Power, Input Signal Present, Unit Locked to Input
Operating Temperature	-10° C to +40° C
Relative Humidity	10% - 90% (non-condensing)
Operating Power	95 - 250 volts AC, 47-63 Hz
Physical Size	16.75 W x 1.75 H x 14 D (inches) 425 W x 44 H x 356 D (mm)
Weight	approx. 7 lbs.; 3.15 kg

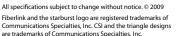
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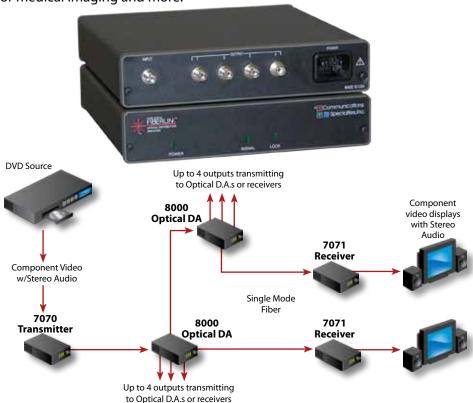




Four output optical D.A. works with one-way Fiberlink systems, providing infinite signal extension and distribution options

Ideal Applications:

Digital signage, broadcast or corporate studios, auditoriums, stadiums and theaters, airport or transportation hubs, distance learning, surgical or medical imaging and more!



Ordering Information		
Part Number	Description	
8001pp-yzw	Configured for 1 output	
8002pp-yzww	Configured for 2 outputs	
8003pp-yzwww	Configured for 3 outputs	
8004pp-yzwwww	Configured for 4 outputs	
1240	Rackmount for one 8000 unit	
1241	Rackmount for two 8000 units	

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Part Number Suffix Codes:

w: Output Optical Wavelength/Mode/Connector

A 850 nm, MM, ST

B 850 nm, MM, FC

C 1310 nm, MM, or SM, ST

D 1310 nm, MM, or SM, FC

E 1310 nm, MM or SM, ST High Speed F 1310 nm, MM or SM, FC High Speed

F 1310 nm, MM or SM, FC High Speed G 1550 nm, MM or SM, ST

H 1550 nm, MM or SM, FC

y: Input Optical Wavelength/Mode

8 850 nm, MM

3 1310/1550, MM or SM

z: Input Connector

S ST connector

F FCPC connector

Signal	Channels	Direction
All types	1 to 4 DA	

Features

Receives an optical signal from a Fiberlink transmitter; then digitally regenerates and relaunches it over one to four outputs

Works with one-way Fiberlink systems*; can support multiple channels on each output

Units may be daisy-chained to create elaborate distribution networks

Absolutely no degradation to original baseband signals

Inputs and outputs configured separately; configured in sets of two

Works with multimode or single mode fiber at 850, 1310 or 1550 nm

Stand-alone box with internal power supply

One and two unit rackmount kits available for mounting in 19" rack

*See chart on reverse side for wavelength compatibility.

For operating Loss Budgets and Maximum Usable Distance, please see the 8000 & 8100 Loss Budgets Data Sheet





Compatability Chart

The following chart indicates which Fiberlink® systems can interface with the 8000 Series units. Note that when multiple ODA's are cascaded together, signal compatibility is a function of the Transmitter and Receiver units being used on each end of the system.

Can Receive: O

8000 O.D.A.s can RECEIVE the following inputs from Fiberlink Transmitter units:

Tx Output				
to D.A.	850nm MM	1310 nm MM	1310 nm SM	1550nm MM/SM
3132				
3400		•		•
3440		0	0	O
4040				
4160				
4320		•	•	
7030				
7040				Ŏ
7050		Ŏ	Ŏ	
7060		•		0
7070			•	
7100		•		
7130				•
7140				
7220/2/4/6	Ŏ			
7242	0			•
7250*	0			0
8000			•	•
8100		•	•	•
Flex	•	•	•	•

8000 O.D.A.s can TRANSMIT the following outputs to Fiberlink Receiver units:

D.A. Output				
to Rx	850nm MM	1310 nm MM	1310 nm SM	1550nm_MM/SM
3133	<u> </u>	<u> </u>	<u> </u>	
3401				
3441		Ō		0
4041				ŏ
4161		•	•	0
4321		•		0
7031				
7041		•	•	
7051				
7061				
7071				
7101				
7131				•
7141				
7221/3/5/7	0			•
7243	0			•
7251*	0			ŏ
8000			•	•
8100		•	•	•
Flex	•	•	•	0

* The 7250 Series is a two fiber system. You will need two 8000 ODA's.

General Specifications

The 8000 Series Optical D.A. does not have any video, audio or data specifications of its own. These baseband specifications are a function of the Fiberlink system that is being used in conjunction with the 8000 Series. Refer to the respective product data sheets for complete information.

It should be noted that when using an 8000 Series O.D.A., operating loss budget and maximum usable distance will vary from that specified on the individual product data sheets. A supplement to this data sheet, featuring a complete listing of loss budgets, is available online. Or, you may contact CSI's sales department for assistance.

Operating Wavelength	850, 1310 and/or 1550 nm
Number of Fibers	1 in; 1 to 4 out
Signal Connectors	ST and/or FCPC
LED Indicators	Power, Input Signal Present, Unit Locked to Input
Operating Temperature	-10° C to +40° C
Relative Humidity	10% - 90% (non-condensing)
Operating Power	95 - 250 volts AC, 47-63 Hz
Physical Size	7.25 W x 1.5 H x 8 D (inches) 184 W x 38 H x 203 D (mm)
Weight	approx. 2 lbs.; 0.91 kg
Slots Filled in 6000A Card Cage	Card version is not offered at this time. SIngle and double unit rackmount kits may be purchased for mounting the box unit within a standard 19" rack.

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UPDATED 2/6/2009







8000 & 8100 Optical Distribution Series

Loss budgets and transmission distances

This four-page guide is intended to be used as a supplement to the data sheets for the 8000 and 8100 Series of products.



Signal	Channels	Direction
8000 Series All types	1 to 4 DA	→
8100 Series All types	2 to 12 DA	→

8100 Series



Contents

8000 Series

The following charts show loss budgets and maximum transmission distances for all units compatible with the 8000 and 8100 Series O.D.A.s. Products not included on the input and/or output charts do not function with these units. Note that some systems operating at the highest wavelength are compatible with the O.D.A.s' input but not with their output.

Be sure to refer to the charts on the last page of this document for loss budgets resulting from the cascading of two or more O.D.A.s together, as these numbers are different than when only a single O.D.A. is in use.

Single O.D.A.; Loss Budgets Between Transmitter and O.D.A. Page 2

Single O.D.A.; Loss Budgets Between O.D.A. and Receiver Page 3

Cascading O.D.A.s; Loss Budget Between O.D.A. Units Page 4

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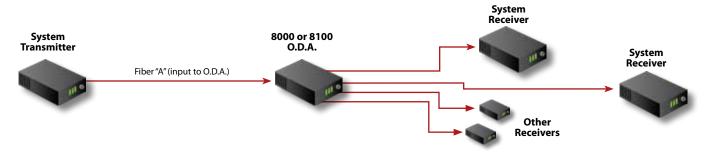


UPDATED 2/6/2009



8000 & 8100 Optical Distribution Series

Loss budgets and transmission distances

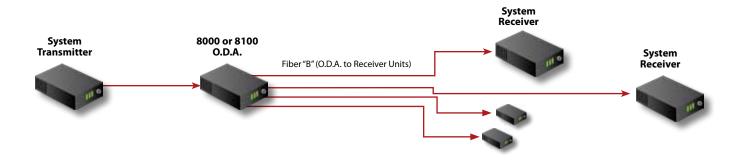


System Source Transmitter	Loss Budget in dB for Fiber "A"	Max. Distance in km for Fiber "A"	8000 & 8100 Part Number Configuration for "y"
P/N: Flex System (1-wa	ay systems only)		
Part Suffix			
-1	0-18	2	8
-3	0-1	0.3	3
-7	2-18	40	3
-9	0-17	55	3
P/N: 3132			
Part Suffix			
-x9pp	0-15	0.5 (MM)* or 50 (SM)**	3
P/N: 3440			
Part Suffix			
-x1z	0-18	2	8
P/N: 4040			
Part Suffix			
-x1z	0-20	1	8
-x3z	2-18	5	3
-x7z	2-16	35	3
-x9z	0-17	55	3
P/N: 4160, 4320			
Part Suffix			
-zz1y or -zzy1	0-20	1	8
-zz3y or -zzy3	2-18	5	3
-zz7y or -zzy7	2-16	35	3
-zz9y or -zzy9	0-17	55	3
	, 7060, 7070, 7100, 7130, 71	40	
Part Suffix			
-x1z	0-13	0.75	8
-x3z	2-18	2	3
-x7z	2-16	35	3
-x9z	2-17	55	3
P/N: 7220, 7222, 7224 Part Suffix	, 7226, 7225, 7227, 7242		
-x7z	0-12	0.5 (MM)* or 20 (SM)**	3
-Y / 7	0-12	0.4 (MM)* or 20 (SM)**	3



8000 & 8100 Optical Distribution Series

Loss budgets and transmission distances

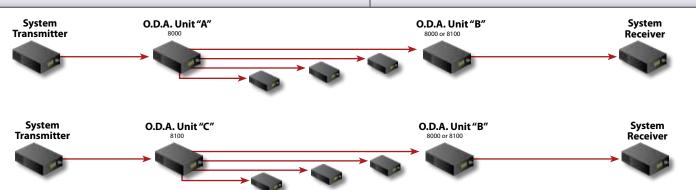


System Receiver	Loss Budget in dB for Fibers "B"	Max. Distance in km for Fibers "B"	Part Number Cont 8000	figuration for "w" 8100
P/N: Flex System (1-w	ay systems only)			
Part Suffix				
-1	0-18	2	A or B	J or K
-3	0-28	18	C or D	L or M
-7	0-28	60	C or D	L or M
P/N: 3133				
Part Suffix				
-x9pp	0-13	0.5 (MM)* or 40 (SM)**	G or H	Q or R
P/N: 3441				
Part Suffix				
-x1z	0-16	2	A or B	J or K
P/N: 4041				
Part Suffix				
-x1z	0-20	1	A or B	J or K
-x3z	0-25	10	C or D	L or M
-x7z	0-23	55	C or D	L or M
P/N: 4161, 4321				
Part Suffix				
-zz1y or -zzy1	0-20	1	A or B	J or K
-zz3y or -zzy3	0-25	10	C or D	L or M
-zz7y or -zzy7	0-23	55	C or D	L or M
P/N: 7031, 7041, 7051	I, 7061, 7071, 7101, 7131, 71	41		
Part Suffix				
-x1z	0-13	0.75	A or B	J or K
-x3z	0-23	2	C or D	L or M
-x7z	0-21	45	C or D	L or M
-x9z	0-17	55	G or H	Q or R
P/N: 7221, 7223, 7225	5, 7227, 7243			
Part Suffix				
-x7z	0-12	0.5 (MM)* pr 20 (SM)**	E or F	N or P
	0-12	0.4 (MM)* or 20 (SM)**	G or H	Q or R



8000 & 8100 Optical Distribution Series

Loss budgets and transmission distances



Note: When two or more O.D.A units are cascaded together, loss budgets and distances should be derated by 10% for each additional O.D.A.

System Source Transmitter	Unit "A" Configuration for "w"	Unit "C" Configuration for "w"	Loss Budget in dB		Unit "B" Configuration for "y"
P/N: Flex System	(1-way systems only)				
Part Suffix					
-1	A or B	J or K	0-16	1.5	8
-3	C or D	L or M	2-17	11	3
-7	C or D	L or M	2-18	40	3
P/N: 3132					
Part Suffix					
-x9pp	G or H	Q or R	0-15	0.5 (MM)* or 50 (SM)*	* 3
P/N: 3440					
Part Suffix					
-x1y	A or B	J or K	0-18	2	8
P/N: 4040					
Part Suffix					
-x1z	A or B	J or K	0-20	1	8
-x3z	C or D	L or M	2-18	5	3
-x7z	C or D	L or M	2-16	35	3
P/N: 4160, 4320					
Part Suffix					
-zz1y or zzy1	A or B	J or K	0-20	1	8
-zz3y or zzy3	C or D	L or M	2-18	5	3
-zz7y or zzy7	C or D	L or M	2-16	35	3
P/N: 7030, 7040,	7050, 7060, 7070, 7100,	7130, 7140			
Part Suffix					
-x1z	A or B	J or K	0-13	0.75	8
-x3z	C or D	L or M	2-18	2	3
-x7z	C or D	L or M	2-16	35	3
-x9z	G or H	Q or R	2-17	55	3
P/N: 7220, 7224, Part Suffix	7226, 7225, 7227, 7242				
-x7z	E or F	N or P	0-11	0.5 (MM)* or 20 (SM)*	* 3
-x9z***	G or H	Q or R	0-11	20 (SM)**	3
*(MM) = transmitted over multimode	fiber; **(SM)= transmitted over single mode fiber; **	** Discontinued product			



6500 Optical Splitter Series

Passive optical splitters allow transmission from one fiber optic transmitter to multiple receiver units by "splitting" optical power across outputs



Signal Channels Direction **All Types** 2 or 4

Features

Passive optical splitters "split" the optical power from a one-way fiber optic transmitter to drive multiple fibers simultaneously

As optical power is "split" between outputs, each output incurs "optical loss", specified in dB

Works with all Fiberlink® one-way systems

Due to optical loss, distance supported will be significantly less than in point-to-point systems. For support of longer distances, refer to Series 8000 and 8100 active distribution amplifiers

No power required

Models available for use with either single mode or multimode fiber with two or four outputs

Available with either ST or FCPC connectors

Card version fits in 6000A card cage

Component video displays with Stereo Audio High-Res RGB (up to WXGA) 6522 **Passive** 7220 Tx **Splitter** 7221 Rx Fiber Fiber Cable Fiber

Ordering Information

Part Number	Description	Type of Fiber
6512-1-Bz	1 x 2 Passive Splitter Box Version	MM
6512-1-Cz	1 x 2 Passive Splitter Card Version	MM
6522-1-Bz	1 x 2 Passive Splitter Box Version	SM
6522-1-Cz	1 x 2 Passive Splitter Card Version	SM
6514-1-Bz	1 x 4 Passive Splitter Box Version	MM
6514-1-Cz	1 x 4 Passive Splitter Card Version	MM
6524-1-Bz	1 x 4 Passive Splitter Box Version	SM
6524-1-Cz	1 x 4 Passive Splitter Card Version	SM

Part Number Suffix Codes:

S ST Connector

> F FCPC Connector



General Specifications	
Number of Fibers	1 in; 2 or 4 out
Operating Wavelength	6512 & 6514: 850/1310nm, Multimode 6522 & 6524: 1310/1550nm, Single Mode
Insertion Loss (each output)	6512 & 6522: 3.5 to 4.5 dB 6514 & 6524: 6.5 to 8.0 dB
Power Requirements	none
Operating Temperature Range	-35° to +74° C
Relative Humidity	10% - 95% (non-condensing)
Optical Connectors	ST or FCPC
Physical Size	1.2 H x 5 W x 7 D (inches) 30 H x 127 W x 178 D (mm)
Weight	approx. 1 lb.; 0.45 kg
Slots Filled in 6000A Card Cage	6512 & 6522: 1 6514 & 6524: 2



About CSI

Communications Specialties, Inc. (CSI) is an award-winning manufacturer of Pro A/V products for the distribution, conversion or transmission of television and computer video signals, including fiber optic transmission systems, scan converters and video scalers. The company was founded in 1983 by veterans of the broadcast industry. Since then, CSI has managed to consistently design innovative products that are used worldwide by Fortune 500 Companies in a variety of markets such as Broadcast/Professional A/V, Videoconferencing, Education, Home Theater, Security, ITS, Industrial Monitoring, and more!

The **Fiberlink®** line offers an extensive and affordable family of fiber optic transmission systems for the Professional A/V marketplace and includes several ground-breaking products for the transmission of high-resolution RGB signals. Systems for point-to-point and point-to-multipoint signal distribution make these products highly desirable for any Pro A/V architecture. New products are constantly being designed and developed and you can get the latest information at commspecial.com

Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



6500 Optical Splitter Series





Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

You may be interested in the Fiberlink 6400 Series:

Passive optical wave division multiplexers that allow two separate fiber optic links to operate at different wavelengths over a singe fiber!

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Log on to commspecial.com for fiber related resources written for Pro A/V Professionals by Pro A/V Professionals!



UPDATED 2/4/2009

All specifications subject to change without notice. $\ensuremath{\mathbb{Q}}$ 2009

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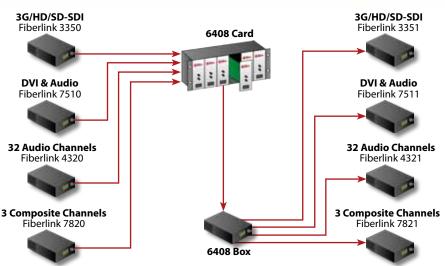
6400 CWDM Series

Coarse wave division multiplexers (CWDM) allow 4, 8 or 16 fiber optic links to operate at different wavelengths over a single fiber

Ideal Applications:

The 6400 Series is ideal for virtually every fiber optic application to reduce fiber usage, consolidate signals where fiber capacity is limited and maximize the bandwidth of single mode fiber.





Ordering Information		
Part Number	Description	
6404-B7y	4 Channel CWDM, Box Version	
6404-C7y	4 Channel CWDM, Card Version	
6408-B7y	8 Channel CWDM, Box Version	
6408-C7y	8 Channel CWDM, Card Version	
6416-B7y	16 Channel CWDM, Box Version	
6416-C7y	16 Channel CWDM, Card Version	
y: S ST Co	nnector	
L LC Co	nnector	

	No. Optical	
Signal	Signals	Direction
All Types	4, 8 or 16	or or

Features

Combine 4, 8 or 16 optical signals at different wavelengths onto a single fiber.

May be used to transmit separate optical signals in the same direction or in opposite directions in the same unit

Works with all Fiberlink® one-way and two-fiber two-way systems

Available in box and card versions

Available with LC or ST type connectors

Typically used in pairs. Each unit sold separately

No power required

4 and 8 channel card version fills two slots in 6000A card cage

16 channel card version fills three slots in 6000A card cage



General Specifications	
Channels:	4, 8 or 16
Directionality:	Each port can communicate in either direction (In or Out) independent of other ports
Connectors:	ST or LC
Fiber Type:	Single Mode
Maximum Insertion Loss:	4 Channel: 2 dB 8 Channel: 3 dB 16 Channel: 5.5 dB
Box Dimensions	4 & 8 Channel Versions: 1.2 H x 5 W x 7 D (inches) 30 H x 127 W x 178 D (mm)
	16 Channel Version: 1.75 H x 16.75 W x 10D (inches) 44 H x 425 W x 254 D (mm)
Slots filled in 6000A Card Cage:	4 & 8 Channel version fills 2 slots 16 Channel version fills 3 slots
Power Requirements:	No power required
Operating Temperature:	-5° C to +60° C
Wavelengths (in nanometers)
4 Channel Version	1570, 1550, 1530, 1510
8 Channel Version	1610, 1590, 1570, 1550, 1530,



6400 CWDM Series





Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

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You may be interested in the Fiberlink 6500 Series:

16 Channel Version

1510, 1490, 1470

1310

1610, 1590, 1570, 1550, 1530,

1510, 1490, 1470, 1450, 1430,

1410, 1390, 1370, 1350, 1330,

Passive optical splitter that allows transmission from one fiber optic transmitter to multiple receiver units by "splitting" optical power across units.

You may be interested in the Fiberlink 6400 WDM Series:

Passive optical wave division multiplexers that allow two fiber optic links to operate at different wavelengths over a single fiber



UPDATED 6/4/2010





6400 WDM Series

Passive optical wave division multiplexers allow two fiber optic links to operate at different wavelengths over a single fiber

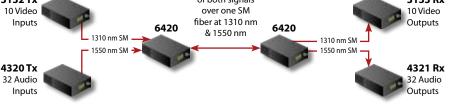


Ideal Applications:

Remote Court Arraignment, Videoconferencing

Signal	No. Optical Signals	Direction
All Types	2	or or

Bidirectional transmission 7141 Rx 7140 Tx over one MM 4 Video 4 Video fiber at 850 nm & 8 Audio &8 Audio 6410 6410 & 1310 nm Outputs Inputs 850 nm MM -850 nm MM 1310 nm MM 4 1310 nm MM 7140 Tx 7141 Rx 4 Video 4 Video &8 Audio & 8 Audio Outputs Inputs Transmission 3132 Tx 3133 Rx of both signals 10 Video over one SM 10 Video Inputs



Features

Passive wave division multiplexers (WDMs) combine two optical signals at different wavelengths onto a single fiber

May be used to transmit two separate optical signals in the same direction or in opposite directions

Works with all Fiberlink® one-way systems

Typically used in pairs. Each unit sold separately

No power required

Models available for use with either single mode or multimode fiber

Available with either ST or FCPC connectors

Card version fills one slot in 6000A card cage

Ordering Information

Part Number	Description	Type of Fiber
6410-Bz	WDM; 850/1310nm Box Version	MM
6410-Cz	WDM; 850/1310nm Card Version	MM
6420-Bz	WDM; 1310/1550nm Box Version	SM
6420-Cz	WDM; 1310/1550nm Card Version	SM

Part Number Suffix Codes:

z: S ST Connector

F FCPC Connector

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General Specifications	
Number of Fibers	1
Operating Wavelength	6410: 850 / 1310nm, Multimode 6420: 1310 / 1550nm, Single Mode
Insertion Loss (each output)	6410: 1.0 to 2.0 dB 6420: 0.5 to 1.5 dB
Power Requirements	none
Operating Temperature Range	-35° to +74° C
Relative Humidity	10% - 95% (non-condensing)
Optical Connectors	ST or FCPC
Physical Size	1.2 H x 5 W x 7 D (inches) 30 H x 127 W x 178 D (mm)
Weight	approx. 1 lb.; 0.45 kg
Slots Filled in 6000A Card Cage	1



6400 WDM Series





Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

You may be interested in the Fiberlink 6400 CWDM Series:

Complex wave division multiplexers allow 4, 8 or 16 fiber optic links to operate at different wavelengths over a single fiber

You may be interested in the Fiberlink 6500 Series:

Passive optical splitter that allows transmission from one fiber optic transmitter to multiple receiver units by "splitting" optical power across units.

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All specifications subject to change without notice. $\ensuremath{@}$ 2010

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4320 Audio Series

Thirty-two independent audio channels digitially transmitted over one fiber with optional redundancy



Ideal Applications:

Rental, Staging, Theater, Stadiums, Theme Parks, Broadcast



Ordering Information

Part Number	Description	Fiber Cores
4320-z ¹ z ² -y ¹ y ² -pp	Transmitter, Box Version	1
4321-z ¹ z ² -y ¹ y ² -pp	Receiver, Box Version	1

Power Supply Suffix Codes (pp) for AC Line Cord:

AU - Australia NA - North America EU - Europe

UK - United Kingdom JP - Japan

z_{*} = optical connector type for main output (4320) and main input (4321). An option must be specified.

ST connector

F FC connector

z₂ = optical connector type for optional second output (4320) and input (4321).

> Ν no second input/output

S ST connector

F FC connector y₁ = wavelength selection for main output (4320) and main input (4321). An option **must** be specified.

850 nm multimode

1310 nm multimode

7 1310 nm single mode

1550 nm single mode

 \mathbf{y}_2 = wavelength selection for **optional** second/redundant output (4320) and input (4321).

> no second input/output 0

850 nm multimode

3 1310 nm multimode

7 1310 nm single mode

1550 nm single mode

Features

Transmits over one multimode or single mode fiber at 850, 1310 or 1550 nm

Optional redundant optical input/output

System consists of transmitter and receiver unit

No adjustments; pure digital processing and transmission

24 bit/96 kHz sampling; maximum audio level +24 dBu

20 Hz to 20 kHz frequency response

Line level, balanced or unbalanced audio operation

Indicator LEDs monitor audio signals and power

Wide range internal power supply

Unit stands 1 RU high. Rackmount ears are included



Audio Specifications	
Number of Audio Channels	32, balanced or unbalanced
Frequency Response	20 Hz - 20 kHz, +0/-0.5 dB
Bits-per-Sample/Sampling Rate	24 bits; 96 kHz
Maximum Audio Level	+24 dBu
SNR (A-Weighted)	95 dB
THD+N	0.002%; 20 Hz - 20 kHz
Channel Phase Differential	0.1°
System Latency	200 uS + fiber cable propagation delay (typically 5 uS/km of fiber)
Input Impedance	600 Ohms terminated; 24 k Ohms unterminated
Output Impedance	50 Ohms
Audio Connectors	Removable screw terminal
Switches	Dip switches to select input termination, balanced or unbalanced input/output. Selectable on a per-channel basis

General Specifications	
LED Indicators	Power; Audio Present (per channel);
Power Requirements*	95-250 volts AC, 47-63 Hz
Operating Temperature Range	-35° to +55° C
Relative Humidity	10%-90% (non-condensing)
Optical Connectors	ST or FCPC
Operating Wavelength	850, 1310 or 1550 nm
Physical Size	1.75 H x 16.75 W x 10 D (inches) 44 H x 425 W x 254 D (mm) Unit stands 1 RU high
Weight	Approximately 5 lbs.; 2.25 kg

About CSI

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4320 Audio Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
850 MM	0-20	0-2
1310 MM	0-25	0-10
1310 SM	0-23	0-55
1550 SM	0-25	0-80

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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4160 Audio Series

Sixteen independent audio channels digitially transmitted over one fiber with optional redundancy

Ideal Applications:

Rental, Staging, Theater, Stadiums, Theme Parks, Broadcast

Signal	Channels	Direction
Audio	16	→



	4160 Tx	4161 Rx	
Up to 16			——> Up to 16
Audio Inputs	Fiber Cabl	e 	Audio Outputs
(Line Level)			(Line Level)

Ordering Information

Part Number	Description	Fiber Cores
4160-z ₁ z ₂ -y ₁ y ₂ -pp	Transmitter, Box Version	1
4161-z ₁ z ₂ -y ₁ y ₂ -pp	Receiver, Box Version	1

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe **UK - United Kingdom** JP - Japan

z₁ = optical connector type for main output (4160) and main input (4161). An option must be specified.

> S ST connector

F FC connector

 \mathbf{z}_2 = optical connector type for optional second output (4160) and input (4161).

> Ν no second input/output

S ST connector

F FC connector **y**₁ = wavelength selection for main output (4160) and main input (4161). An option **must** be specified.

> 1 850 nm multimode

3 1310 nm multimode

1310 nm single mode

1550 nm single mode

 $\mathbf{y_2}$ = wavelength selection for **optional** second/redundant output (4160) and input (4161).

0 no second input/output

850 nm multimode

3 1310 nm multimode

7 1310 nm single mode

1550 nm single mode

Transmits over one multimode or single mode fiber at 850, 1310

Optional redundant optical input/output

System consists of transmitter and receiver unit

No adjustments; pure digital processing and transmission

24 bit/96 kHz sampling; maximum audio level +24 dBu

20 Hz to 20 kHz frequency response

Line level, balanced or unbalanced audio operation

Indicator LEDs monitor audio signals and power

Wide range internal power supply

Unit stands 1 RU high. Rackmount ears are included





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Audio Specifications	
Number of Audio Channels	16, balanced or unbalanced
Frequency Response	20 Hz - 20 kHz, +0/-0.5 dB
Bits-per-Sample/Sampling Rate	24 bits; 96 kHz
Maximum Audio Level	+24 dBu
SNR (A-Weighted)	95 dB
THD+N	0.002%; 20 Hz - 20 kHz
Channel Phase Differential	0.1°
System Latency	200 uS + fiber cable propagation delay (typically 5 uS/km of fiber)
Input Impedance	600 Ohms terminated; 24 k Ohms unterminated
Output Impedance	50 Ohms
Audio Connectors	Removeable screw terminal
Switches	Dip switches to select input termination, balanced or unbalanced input/output. Selectable on a per-channel basis

General Specifications	
LED Indicators	Power; Audio Present (per channel)
Power Requirements*	95-250 volts AC, 47-63 Hz
Operating Temperature Range	-35° to +55° C
Relative Humidity	10%-90% (non-condensing)
Optical Connectors	ST or FCPC
Operating Wavelength	850, 1310 or 1550 nm
Physical Size	1.75 H x 16.75 W x 10 D (inches) 44 H x 425 W x 254 D (mm) Unit stands 1 RU high
Weight	Approximately 5 lbs.; 2.25 kg

About CSI

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4160 Audio Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
850 MM 1310 MM	0-20	0-2
1310 MM	0-25	0-10
1310 SM	0-23	0-55
1550 SM	0-25	0-80

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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4040 Audio Series

Four independent audio channels digitally transmitted over one fiber



	4040 Tx	4041 Rx	
Four Audio			Four Audio Outputs
Inputs	Fiber Cable	\rightarrow	(Line Level)
(Line Level)			

Ordering Inf	ormation	
Part Number	Description	Fiber Cores
4040-Bxy	Transmitter, Box Version	1
4040-Cxy	Transmitter, Card Version	1
4041-Bxy	Receiver, Box Version	1
4041-Cxy	Receiver, Card Version	1
PDPS-1-pp	Power Supply	

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe

UK - United Kingdom JP - Japan

1550 nm Single Mode

Part Number Suffix Codes:

9

x:	1	850 nm Multimode	<i>y</i> :	S	ST Connector
	3	1310 nm Multimode		F	FCPC Connector
	7	1310 nm Single Mode			

2	31 Connector
F	FCPC Connector

Signal	Channels	Direction
Audio	4	→

Features

Transmits over one multimode or single mode fiber at 850, 1310 or 1550 nm

No adjustments; pure digital processing and transmission

24 bit/96 kHz sampling; maximum audio level +24 dBu

20 Hz to 20 kHz frequency response

Line level, balanced or unbalanced audio operation

Indicator LEDs monitor audio signals and power

Wide range power supply allows operation from low voltage AC and DC sources

Card version fills one slot in 6000A card cage

System consists of transmitter and receiver unit; card or box version. Each end, plus power supply, must be purchased separately.

RoHS Compliant



Audio Specifications	
Number of Audio Channels	4, balanced or unbalanced
Frequency Response	+0/-0.5 dB, 20 Hz - 20 kHz
Bits-per-Sample/Sampling Rate	24 bits; 96 kHz
Maximum Audio Level	+24 dBu
SNR (A-Weighted)	95 dB
THD+N	0.002%, 20 Hz - 20 kHz
Channel Phase Differential	<u>+</u> 0.1°
System Latency	200 uS + fiber cable propagation delay (typically 5 uS/km of fiber)
Crosstalk	Min. 95 dB (1 kHz)
Input Impedance	600 Ohms terminated; >24 k Ohms unterminated
Output Impedance	50 Ohms
Audio Connectors	Removable screw terminal
Switches	Dip switches to select input termination, balanced or unbalanced input/output. Selectable on a per-channel basis
General Specifications	
LED Indicators	Power; Audio Present (per channel); Alarm LED (card version only)
Power Requirements*	9-24 volts AC or DC, 5 watts
O	250 to 1600 C

LED Indicators	Power; Audio Present (per channel); Alarm LED (card version only)
Power Requirements*	9-24 volts AC or DC, 5 watts
Operating Temperature Range	-35° to +60° C
Relative Humidity	10%-90% (non-condensing)
Optical Connectors	ST or FCPC
Operating Wavelength	850, 1310 or 1550 nm
Physical Size	6.5 W x 1.15 H x 8 L (inches) 165 W x 29 H x 203 L (mm)
Weight	approx. 1 lb.; 0.45 kg
Slots Filled in 6000A Card Cage	1



4040 Audio Series



Operating Loss Budget & Maximum Usable Distance*

Wavelength	Loss(dB)	Distance (km)
850 MM	0-20	0-2
1310 MM	0-25	0-10
1310 SM	0-23	0-55
1550 SM	0-25	0-80

SM = Single Mode Fiber MM = MultiMode Fiber

*Distance specifications are only approximate and are not guaranteed. Operating loss budget must not be exceeded.

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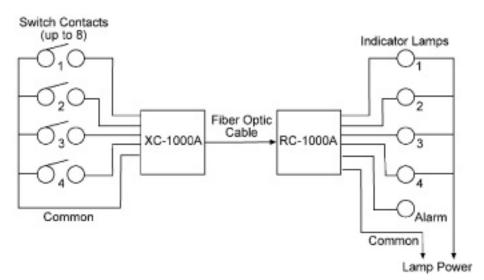
XC/RC-1000A

Transmits eight independent contact closure or TTL signals over a single fiber



Ideal Applications:

Security Centers, Casinos, Power Plants and Industrial Facilities all make smart use of the XC/RC 1000A!



Signal	Channels	Direction
Contact, TTL	8	

Features

Eight independent channels multiplexed over a single fiber

Channels support contact or TTL signals and may be used in any combination

LEDs on both units display channels in use

Open collector output is provided for loss of signal

System consists of transmitter and receiver unit; card or box version. Each end, plus power supply, must be purchased separately

Card version fills one slot in MCR-1000A rackmountable card cage

Part Number	Description	Fiber Cores
XC-1000A-1	Transmitter Box, 850 nm, Multimode	1
XC-1000A-3	Transmitter Box, 1310 nm, Multimode	1
XC-1000A-7	Transmitter Box, 1310 nm, Single Mode	1
RC-1000A-1	Receiver Box, 850 nm, Multimode	1
RC-1000A-3	Receiver Box, 1310 nm, Multimode	1
RC-1000A-7	Receiver Box, 1310 nm, Single Mode	1
MCR-1000A*	Rackmountable Card Cage	
XP-1000A	115 volts AC, 50/60 Hz plug-in adaptor	
XP-1001	230 volts AC, 50/60 Hz plug-in adaptor	

"To order a rackmounted version of an XC-1000A or RC-1000A unit, add an "/MCR" to the part number followed by a "-1","-3" or "-7". Each module occupies one slot in the MCR-1000A card cage. Please note that the card versions of these products are NOT compatible with the model 6000A card cage used with most fiberlink products.



Data Specifications	
Number of Channels	8
Transmitter Input	Contact closure or TTL
Receiver Output	Contact closure or TTL
Contact Closure Rating	0.5A, resistive (10 VA)
Relay Status	Normally open
Speed of Response	2 msec typical
General Specifications	

General Specifications	
Number of Fibers	1
Operating Temperature	0 to +50° C
Operating Power (per unit)	+10 to +18 volts DC @ 200 mA or +10 to +18 volts AC rms @ 200 mA
Dimensions	5.75 W x 1.75 H x 4 L (inches) 146 W x 45 H x 102 L (mm)
Weight	approx. 1 lb.; 0.45 kg
Optical Connectors	ST: multimode; FCPC: single mode
Optical Wavelength	850 or 1310 nm
Optical Fiber	50 or 62.5 micron multimode fiber 8/10 micron single mode fiber



XC/RC-1000A



Operating Loss Budget & Maximum Usable Distance*

Fiber Type	Loss(dB)	
50 micron	0-8	
62.5 micron	0-10	
8/10 micron	0-10	

For system to operate properly, operating loss budget must not be exceeded

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About CSI

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The **Fiberlink®** line offers an extensive and affordable family of fiber optic transmission systems for the Professional A/V marketplace and includes several ground-breaking products for the transmission of high-resolution RGB signals. Systems for point-to-point and point-to-multipoint signal distribution make these products highly desirable for any Pro A/V architecture. New products are constantly being designed and developed and you can get the latest information at commspecial.com

Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



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UPDATED 2/6/2009





XRD-8050

Fiber optic data transmission for CALTRANS 170 or 179 series and NEMA traffic signal controller applications

Ideal Applications:

Intelligent Transportation, Traffic and Control



Signal	Channels	Direction
CALTRANS /NEMA	Dual	\longleftrightarrow

Features

Implements a fiber optic master/local data bus for traffic signal controller networks

Works with CALTRANS 170-Series, CALTRANS 179-Series and NEMA controllers

Each transceiver, plus power supply, must be purchased separately

Units are "daisy-chained" in a linear multi-drop configuration

User-adjustable anti-streaming time-out feature

12-hour internal battery back-up

Meets CALTRANS and NEMA traffic signal control equipment environmental requirements

Ordering Information		
Part Number	Description	Number of Fibers
XRD-8050-1	Transmitter Box, 850 nm, Multimode	4
XRD-8050-3	Transmitter Box, 1310 nm, Multimode	4
XRD-8050-7	Transmitter Box, 1310 nm, Single Mode	4
XP-1000AW	115 volts AC, 50/60 Hz plug-in adaptor	
XP-1001W	230 volts AC, 50/60 Hz plug-in adaptor	



Data Specifications	
Number of Channels	1
Number of Outputs per Channel	2
System Protocol:	RS-232
Control Signals:	RTS, CTS, DTR, DCD, DSR
Transmission Format	Asynchronous
System Bandwidth	0-150 Kb/sec
Signal Connectors	DB-25S
General Specifications	
Number of Fibers	4
Operating Temperature	-37 to +74°C ambient
Operating Power (per unit)	+12 to +18 volts DC or AC @ 300 mA max. provided by external power source
Dimensions	7 W x 5 H x 2 L (inches) 128 W x 127 H x 51 L (mm)
Weight	approx. 1 lb.; 0.45 kg
Optical Connectors	ST: multimode; FCPC: single mode
Optical Wavelength	850 or 1310 nm
Optical Fiber	50 or 62.5 micron multimode fiber 8/10 micron single mode fiber
Indicator LEDs	Anti-streaming, TD1, RD1, TD2, RD2, power
Shock	Per military specification MIL-STD-810D, Method 514.1,



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equipment class G



XRD-8050



Operating Loss Budget & Maximum Usable Distance*

Fiber Type	Loss(dB)	
50 micron	0-12	
62.5 micron	0-15	
8/10 micron	0-17	

For system to operate properly, operating loss budget must not be exceeded.

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IRIG

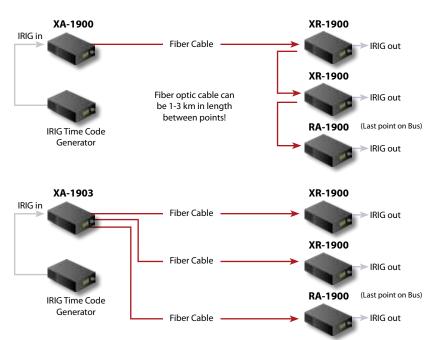


XA/RA-1900A, XR-1900, XA-1903

Fiber optic transmission of IRIG time-code signals, configured for point-to-point, point-to-multipoint or drop-and-repeat signal distribution

Ideal Applications:

Military and the Aerospace Industries



Ordering Information			
Part Numner Description		Number of Fibers	
XA-1900-1	Transmitter Box, 850 nm, Multimode	1	
XA-1900-3	Transmitter Box, 1310 nm, Multimode	1	
XA-1900-7	Transmitter Box, 1310 nm, Single Mode	1	
RA-1900-1	Receiver Box, 850 nm, Multimode	1	
RA-1900-3	Receiver Box, 1310 nm, Multimode	1	
RA-1900-7	Receiver Box, 1310 nm, Single Mode	1	
XR-1900-1	Transceiver Box, 850 nm, Multimode	2	
XR-1900-3	Transceiver Box, 1310 nm, Multimode	2	
XR-1900-7	Transceiver Box, 1310 nm, Single Mode	2	
XA-1903-1	Transmitter Box, 850 nm, Multimode	10	
XA-1903-3	Transmitter Box, 1310 nm, Multimode	10	
MCR-1000A*	Rackmountable Card Cage		
AP-1000	Adaptor plate for mounting XA/RA-1900 units within MCR-1000A card cage		
XP-1000A	115 volts AC, 50/60 Hz plug-in adaptor		
XP-1001	230 volts AC, 50/60 Hz plug-in adaptor		

"To order a rackmounted version of the XR-1900, add "/MCR" to the part number, followed by a "-1", "-3" or "-7". To order rackmounted versions of the XA/ RA-1900, order an AP-1000 for use with each unit. Each module occupies one slot in the MCR-1000 A card cage. Please note that the card versions of these products are MOT compatible with the model 6000A card cage used with most Fiberlink products.

The XA-1903 is provided in a 19" rackmountable enclosure.



Signal	Channels	Direction
XA-1900/R IRIG	A-1900 - Analo 1	g
XR-1900 - <i>I</i> IRIG	Analog 1	\longleftrightarrow
XA-1903 - A	Analog 1	→

Features

Transmits IRIG and similar NASA and NBS standard instrumentation time-code formats up to 100 kHz

Combinations of four different units may be configured to provide pointto-point, point-to-multipoint or dropand-repeat signal distribution. Each unit must be purchased separately

Built-in regulated power supplies allow operation from unregulated AC or DC sources

Transmits at 850 nm or 1310 nm over standard multimode or single mode fiber

System can be configured for four wire modem or AFSK applications

XA/RA-1900A and XR-1900 models may be mounted in the MCR-1000A card cage. The XA-1903 is provided in a 19" rackmountable enclosure



IRIG Compatibility A System Bandwidth (+0, -3 dB) 20	(A/RA/XR-1900: 1, XA-1903: 10 A through H 20 Hz to 100 kHz 500 Ohms nominal	
IRIG Compatibility A System Bandwidth (+0, -3 dB) 20	through H O Hz to 100 kHz	
System Bandwidth (+0, -3 dB) 20	0 Hz to 100 kHz	
•		
Input/Output Load Impedance 60	000 Ohms nominal	
·		
Input/Output Signal Voltage 1	volt rms	
Signal/Noise Ratio 63	67 dB typical	
Noise Floor (full bandwidth) 1.	.3 mv rms maximum	
General Specifications		
X	(A/RA-1900: 1 fiber (R-1900: 2 fibers (A-1903: 10 fibers	
Operating Temperature -2	20 to +60° C	
- 1	-15 to +25 volts DC @ 250 mA or 4 to 18 volts AC, 50/60 Hz	
5	(A-1900 and RA-1900: W x 1.25 H x 2.5 L (inches) 27 W x 32 H x 64 L (mm)	
5.	(R-1900: 5.75 W x 1.25 H x 4 L (inches) 46 W x 32 H x 102 L (mm)	
19	(A-1903: 9 W x 1.75 H x 6.5 L (inches) 83 W x 45 H x 165 L (mm)	
•	(A-1900, RA-1900, XR-1900: Approx. 1 lb; 0.45 kg	
	(A-1903: Approx. 3 lbs; 1.36 kg	
Optical Connectors S	T: Multimode, FCPC: Single Mode	
	250 nm/MM, 1310 nm/MM, 310 nm/SM	
•	0 or 62.5 micron multimode fiber, 1/10 micron single mode	

About CSI

Communications Specialties, Inc. (CSI) is an award-winning manufacturer of Pro A/V products for the distribution, conversion or transmission of television and computer video signals, including fiber optic transmission systems, scan converters and video scalers. The company was founded in 1983 by veterans of the broadcast industry. Since then, CSI has managed to consistently design innovative products that are used worldwide by Fortune 500 Companies in a variety of markets such as Broadcast/Professional A/V, Video Conferencing, Education, Home Theater, Security, ITS, Industrial Monitoring, and more!

Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers





Operating Loss Budget & Maximum Usable Distance*

Loss(dB)		
0-10		
0-13		
0-10		

For system to operate properly, operating loss budget must not be exceeded.

Want to learn more about fiber?

Log on to commspecial.com for fiber related resources written for Pro A/V Professionals by Pro A/V Professionals!



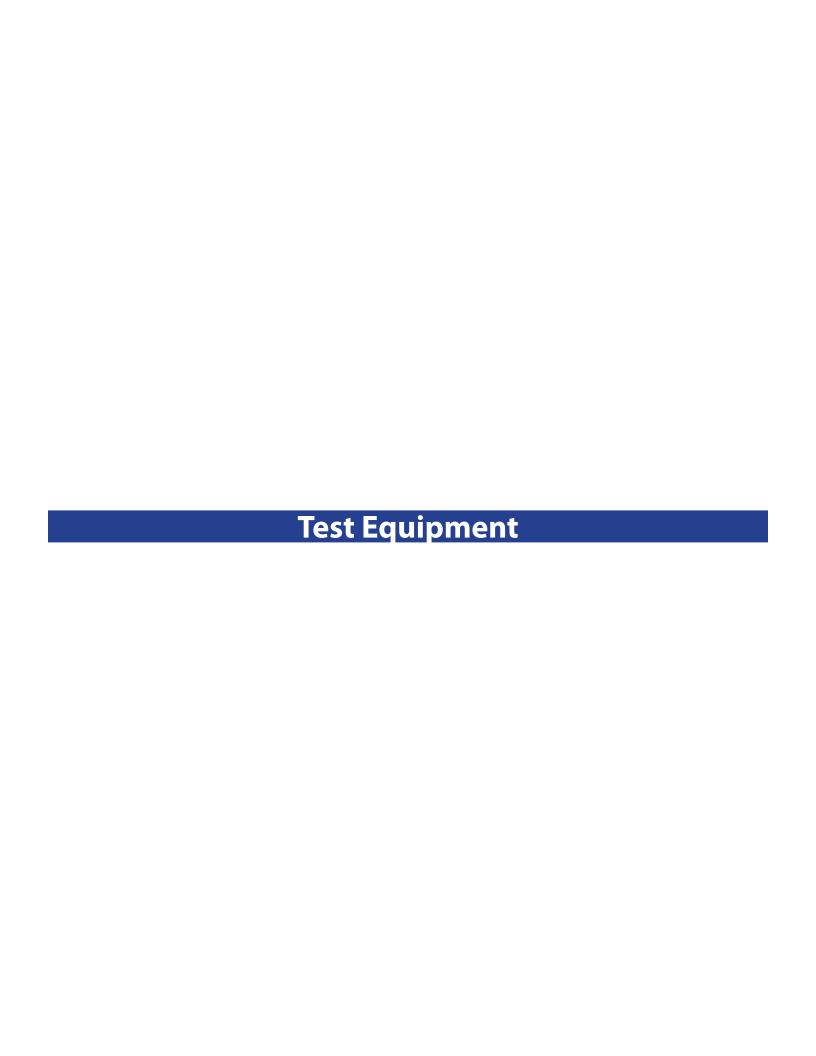
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Optical Testing Devices

Light sources and an optical power meter allow for convenient, on-site testing of fiber networks during construction and maintenance procedures



Part #	Description
6610	Visible Light Source
6615	Optical Power Meter
6620	Three Wavelength Light Source



Features

Three separate optical testing devices for use in the field help to ensure that fiber networks are functioning properly and loss budgets are met.

Fiberlink® Three Wavelength Light Source

- Laser output at wavelengths of 850, 1310 and 1550 nm
- · Works with single mode and multimode fiber
- Output via ST connectors; jumper cables or ST/FC adaptors may be used
- Rechargeable battery provides up to four hours of operating power

Fiberlink® Optical Power Meter

- Measures the strength of optical signals at 850, 980, 1310 and 1550 nm wavelengths
- Gain and loss are accurately measured from -50 to +10 dBm
- · 0.01 resolution

Fiberlink® Optical Power Meter (continued)

- Three AAA batteries provide up to 360 hours of operating power
- Works with single mode or multimode fiber;
 ST, FC or SC connectors

Fiberlink® Visible Light Source

- Visible 650 nm laser output
- · Works with single mode and multimode fiber
- Output via FC connectors; jumper cables, ST or SC adaptors may be used
- Two AA batteries provide up to 30 hours of operating power
- Ideal for identifying fiber breaks and individual fibers within fiber bundles

Part Number Description 6610 Visible Light Source 6615 Optical Power Meter 6620 Three Wavelength Light Source



Visible Light Source Specifications*:		
Output Power	1 mW	
Operating Wavelength	650 nm	
Fiber Types Supported	Multimode and single mode	
Optical Connector	Universal, supports all types of ferrules	
Operating Modes	Continuous or pulsing (2 Hz rate)	
Power	2 x AA batteries, included	
Battery Life	Approx. 30 hours using alkaline batteries	
Operating Temperature	-10°C to +40°C	
Dimensions	3.95" x 2" x 1" (100 x 50 x 35 mm)	
Weight	2 oz. (50 grams)	

Optical Power Meter Specifications:		
Wavelength Supported	850, 980, 1310, 1550 nm, switch selectable	
Optical Connector	Universal adaptor supports all ferrules	
Power Measurement Range	-50 to +10 dBm	
Accuracy	+/- 2.5%	
Display Resolution	0.01	
Readout	dBm or mW, switch selectable	
Power	3 x AAA batteries, included	
Battery Life	Approximately 360 hours using alkaline batteries; Audio Off after 10 minutes	
Operating Temperature	-10°C to +60°C	
Dimensions	3.6" x 2.6" x 0.65" (90 x 55 x 16mm)	
Weight	3 oz. (80 grams)	

Three Wavelength Light So	ource Specifications*:
Operating Wavelengths	850, 1310, 1550 nm
Emitter Types	850 - VCSEL, 1310/1550 - Laser
Output Power (dBm), +/- 20%	850 nm: -3 dBm; 1310 nm: -7 dBm; 1550 nm: -7 dBm
Fiber Types Supported	850 nm: multimode; 1310 nm & 1550 nm: multimode & single mode
Optical Connector	ST, FC, SC adapters
Power	8.4v rechargeable NiMH battery included Universal input AC charger included. 9 volt battery may be used but is not rechargeable
Battery Operating Time	Approximately 4 hours
Battery Recharge Time	Approximately 12 hours
Operating Temperature	-10°C to +40°C
Dimensions	6" x 3" x 1" (150 x 76 x 26mm)
Weight	6.7 oz. (180 grams)



Optical Testing Devices

* Class I Laser Product complies with FDA performance standard for laser products, Title 21, Code of Federal Regulations, Sub-Chapter J

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MCR-1000A: Rackmountable Card Cage

3 RU high enclosure with positions for ten earlier generation Fiberlink units.



Ordering Information

Part Number	Description	Number of Positions
MCR-1000A	Rackmountable Card Cage	10
AP-1000	Adaptor Plate for mounting the following units: XA/RA-1000A, XA/RA-1900. One plate is required for each unit	1

Some Fiblerlink models are available in rackmountable casings, identified by placing an "/MCR" after the part number.

These models are:

XC/RC-1000A/MCR XT/RT-1000A/MCR XR-2500A/MCR

XR-1900/MCR

See individual data sheets for more information on these products.

Features

Rackmountable 19" card cage offers 10 positions for holding any combination of older generation Fiberlink transmitter, receiver or transceiver modules

Modules are either mounted on plugin adapter plates (sold separately) or supplied in special rackmountable casings

Cage contains a 115/230 volts AC, 50/60 Hz power supply, detachable line cord, power switch and fuse

Electrical and optical signal connectors are provided on the rear of the enclosure

Removeable front plate is provided for protection and overall appearance





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General Specifications	
Total Number of Positions	10
Finish	Clear anodized aluminum
Physical Size	19 W x 5.25 H x 10 D (inches) 483 W x 133 H x 255 D (mm)
Operating Temperature Range	-30 to +65 degrees C
Power Required	115 or 230 volts AC, 50/60 Hz 3.5 VA typical
Max. Total Load Current	3.3 A



About CSI

Communications Specialties, Inc. (CSI) is an award-winning manufacturer of Pro A/V products for the distribution, conversion or transmission of television and computer video signals, including fiber optic transmission systems, scan converters and video scalers. The company was founded in 1983 by veterans of the broadcast industry. Since then, CSI has managed to consistently design innovative products that are used worldwide by Fortune 500 Companies in a variety of markets such as Broadcast/Professional A/V, Video Conferencing, Education, Home Theater, Security, ITS, Industrial Monitoring, and more!

The **Fiberlink**® line offers an extensive and affordable family of fiber optic transmission systems for the Professional A/V marketplace and includes several ground-breaking products for the transmission of high-resolution RGB signals. Systems for point-to-point and point-to-multipoint signal distribution make these products highly desirable for any Pro A/V architecture. New products are constantly being designed and developed and you can get the latest information at commspecial.com

Our award-winning product line, the **Scan Do**® family of computer to video scan converters, has redefined industry standards in computer video to NTSC/PAL technology with unsurpassed performance in its price range. All models support high resolutions and refresh rates and are VGA and Mac® compatible. The feature-rich and versatile Scan Do family offers the widest range of scan converters on the market.

The award-winning, **Deuce**® video scalers convert NTSC and PAL to high-resolution, non-interlaced video and offer a far superior and affordable alternative to line doubling and quadrupling. The new generation of Deuce products offer a wide range of non-interlaced resolutions and refresh rates for every application, from professional A/V installations to home theater, including a model designed especially for use with HDTV displays.

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6000A Rackmountable Card Cage

3 RU high enclosure with 20 positions for any combination of Fiberlink card modules. Power supply and alarm sensing module available.



Ordering Information Part Number Description **Number of Positions** 6000A Rackmountable Card Cage 20 6010A-pp **Universal Switching Power Supply** 3 6020A Alarm Sensing Module 1 6031 Single Filler Panel 1 6032 **Double Filler Panel** 2 4 6034 Quadruple Filler Panel Power Supply Suffix Codes (pp) for AC Line Cord: NA - North America AU - Australia EU - Europe **UK - United Kingdom** JP - Japan

About CSI

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Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers

Features

Rackmountable 19" card cage offers 20 positions for any combination of Fiberlink transmitter, receiver and transceiver card modules. (Please refer to the Fiberlink® products' data sheet for slot and power requirements)

Cage may be powered with optional 3-position plug-in power supply or with an external, customer-provided power source

Two power supplies may be used to provide redundant power

Optical signal input and output connectors on each card module are at the rear of the card cage

Optional alarm module indicates fault condition via an audible piezo sounder, blinking red LED and activation of isolated contacts for use with remote monitoring

Single and multiple position blank filler panels are available to conceal positions not in use

ROHS Compliant



Card Cage Specifications:	
Total Number of Positions	20
Finish	Clear, irridited aluminum
Physical Size	19 W x 5.25 H x 11 D (inches) 483 W x 133 H x 280 D (mm)
Operating Temperature Range	-35 to +75° C
Optional External Power Input*	8.7 to 12 VDC
Max. Allowable External Current*	11 amperes
External Power Input Connector	3 position terminal block

^{*}The external power input connector is reverse-polarity protected but should be current limited and/or fused so that input current cannot exceed a maxium of 11 amperes

Total Number of Positions	3
Input Voltage Range (continuous)	90 to 260 volts AC 47/63 Hz @ 2A max.
Output Power	8.0 volts DC +/-1% regulated @ 11 A max.
Output Protection	Overvoltage; crowbar, short circuit; current limiting
Input Protection	P/C fuse for catastrophic failure
Ripple and Noise	1% p-p, DC to 20 MHz
Operating Temperature Range	-35 to +75 degrees C
EMI compliance	FCC 20870 Class B EN 55022 Class B
Safety Compliance	CSA 22.3 No. 220, VDE EN 60 950, European CE
Input Power Connector	IEC 320

Alarm Sensing Module Specifications:

Total Number of Positions	1
Alarm Indications*	Blinking red LED, pulsing piezo sounder, external SPDT contact closures
External Contact Ratings	115/230 VAC 50/60 Hz 5 amperes resistive

^{*} Note that the audible piezo sounder can be turned off via a front panel switch. The blinking red alarm LED and the activated external contacts cannot be deactivated until the fault condition is corrected.



6000A Card Cage



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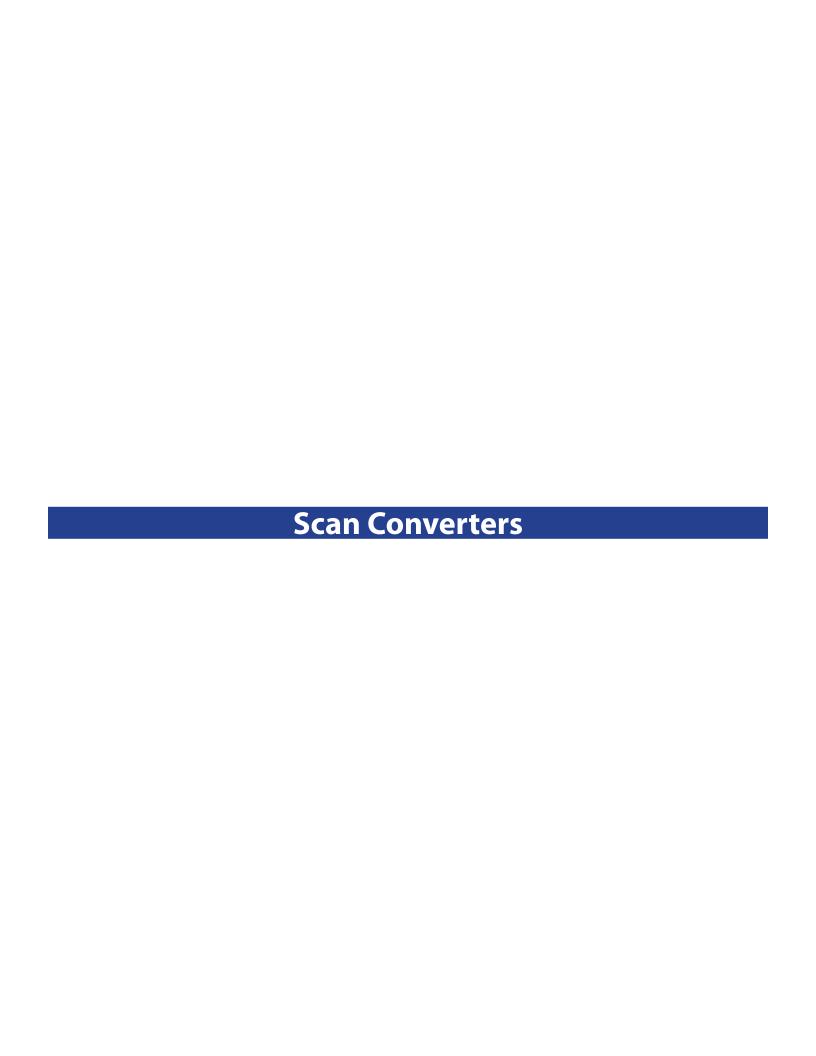


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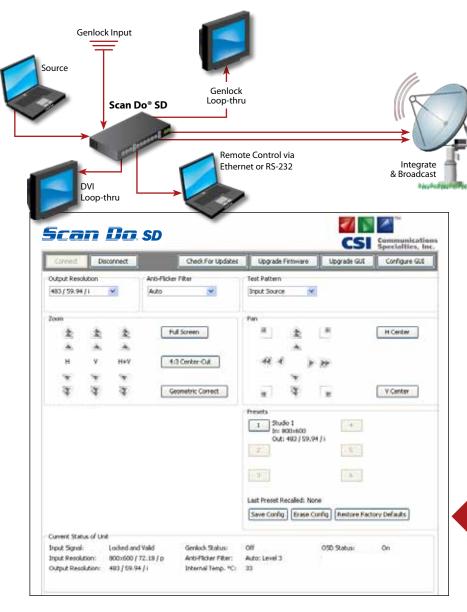
DVI-I to SD-SDI Scan Converter with DVI or Analog RGB inputs.



Convert your high-resolution DVI or Analog RGB computer sources into a SMPTE standard SD-SDI signal for broadcasting on air or integrating into a professional video production system.

Signals In	Signals Out
DVI Input	SD-SDI
or Analog RGB	Copper NTSC, PAL
Up to 1920x1200	NTSC, PAL





Standard Features

Digital DVI & Analog RGB Input Support

Supports SD-SDI output resolutions per SMPTE 259.

Advanced scaling algorithms and 10 bit processing provide exceptionally clean and accurate broadcast quality output.

Genlock with full phasing control locks SD-SDI output to black burst.

RS-232 ports enable remote control of the Scan Do SD.

Two coaxial outputs (SMPTE 259)

Zoom & Shrink horizontally and vertically while maintaining the aspect ratio or set each independently!

Precisely position your image horizontally and vertically.

Capture & Store EDID

Store & Recall Presets from the Front Panel with Preset Status LEDs

On Screen Display & Keypanel Lock Status LEDs

Alternate Function Button

Control your Scan Do® SD from anywhere in the world!

With onboard Ethernet and RS-232, the Scan Do SD allows you to control resolution, zoom, pan, anti-flicker reduction, test patterns and more!

Input Resolutions

DVI-I single link resolutions:

Up to 1920x1200 @ 60 Hz

Pixel Clock Frequency 25 to 165 MHz (Input Pixel Clock Frequency cannot exceed 165 MHz)

Output Resolutions

10-bit SD-SDI per SMPTE 259:

525/59.9/I (NTSC) 625/50/I (PAL)

Input/Output

Single link DVI-I with active loop-thru support; includes 15 pin adapter for Analog RGBHV support

Two coaxial outputs: SMPTE 259M-C

Only one output format is available on all outputs at one time.

Video Processing

10 bit, all digital

Genlock

NTSC/PAL black burst

Coarse & fine phasing with a range of one output vertical period

Image Size & Positioning

Separate H & V positioning

Zoom and Shrink; H & V or together

Control Interfaces

RS-232 & 10/100 Base-T ethernet LAN port with internal HTML host

Front panel push button

Field upgradeable via Ethernet

Additional Features

- Variable flicker reduction
- On Screen Display (OSD) & LED
- Factory defaults reset
- Rack mount kit included
- RoHS compliant
- Test pattern generator: color bars at 100% and 75% Saturation
- Multiple preset storage and recall settings through remote control interfaces or front panel

Dimensions

16.75 W (without rackmount ears) x 1.75 H x 10 D (inches)

425 W x 44 H x 254 D (mm)

Weight: 5.5 pounds; 2.49 kg

Power

Internal universal input AC power supply

95 - 250 volts AC, 47 - 63 Hz, 20 watts, 68.24 BTU/Hr



DVI or Analog RGB Computer Video to SD-SDI Scan Converter





Ordering Information

Part Number 1295-pp

Description Scan Do® SD

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia

JP - Japan

UK - United Kingdom

EU - Europe

Need 1080p?

Log on to scandohd.tv and learn about the Scan Do® HD DVI-I to 3G/HD/SD-SDI Scan Converter today!



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

Sales



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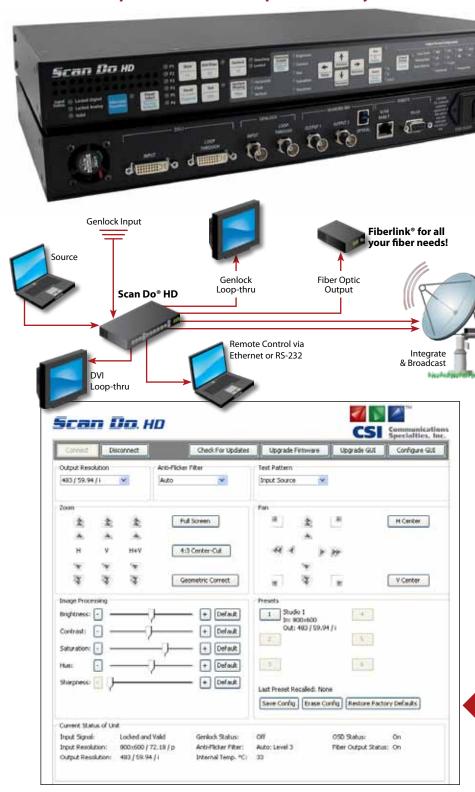


Scan Do. HD

DVI-I to 3G/HD/SD-SDI Scan Converter now with DVI or Analog RGB inputs and 3G-SDI Output Support.



Convert your high-resolution DVI or Analog RGB computer sources into a SMPTE standard 3G, HD or SD SDI signal for broadcasting on air or integrating into a professional video production system.



Signals In	Signals Out
DVI Input	3G/HD/SD-SDI
or Analog RGB	Copper & Fiber
Up to 1920x1200	Up to 1080p

New Features at a glance:

Digital DVI & Analog RGB Input Support 3G Output Support (SMPTE 424M-2006)

Store & Recall Presets from the Front Panel with Preset Status LEDs

Psf Output Support

Capture & Store EDID

SMPTE 297-2006 Compliant Fiber Optic Output

Fiber Optic, On Screen Display & Keypanel Lock Status LEDs

Alternate Function Button

Standard Features

Supports 3G SDI resolutions up to 1080p per SMPTE 424M-2006, HD SDI resolutions up to 1080i per SMPTE 292 and SD SDI resolutions per SMPTE 259.

Advanced scaling algorithms and 10 bit processing provide exceptionally clean and accurate broadcast quality output.

Genlock with full phasing control locks 3G/HD/SD-SDI output to tri-level sync or black burst.

Ethernet & RS-232 ports enable remote control of the HD.

Includes fiber optic output (SMPTE 297-2006) and two coaxial outputs (SMPTE 424M-2006, 292 and 259).

Complete set of Image processing controls and built-in variable flicker reduction.

Zoom & Shrink horizontally and vertically while maintaining the aspect ratio or set each independently!

Precisely position your image horizontally and vertically.

Control your Scan Do® HD from anywhere in the world!

With onboard Ethernet and RS-232, the Scan Do HD allows you to control resolution, zoom, pan, image processing controls, anti-flicker reduction, test patterns and more!

Input Resolutions

DVI-I single link resolutions:

Up to 1920x1200 @ 60 Hz

Pixel Clock Frequency 25 to 165 MHz (Input Pixel Clock Frequency cannot exceed 165 MHz)

Output Resolutions

10-bit 3G-SDI per SMPTE 424M-2006:

1080/60/P 1080/59.94/P

1080/50/P

10-bit HD-SDI pe	r SMPTE 292:
720/60/P	720/59.94/P
720/50/P	720/30/P
720/29.97/P	720/25/P
720/24/P	720/23.98/P
1035/60/I	1035/59.94/I
1080/60/I	1080/59.94/l
1080/50/I	1080/30/P
1080/30/PsF	1080/29.97/P
1080/29.97/PsF	1080/25/P
1080/25/PsF	1080/24/P
1080/24/PsF	1080/23.98/P
1080/23.98/PsF	

10-bit SD-SDI per SMPTE 259:

525/59.9/I (NTSC) 625/50/I (PAL)

Input/Output

Single link DVI-I with active loop-thru support; includes 15pin adapter for Analog RGBHV support

Two coaxial outputs; SMPTE 292M, 259M-C & 424M-2006 Level A

One optical output; SMPTE 297-2006 compliant, 1310 nm, single mode or multimode fiber, LC connector, -3.5 dBm nominal output power

Only one output format is available on all outputs at one time.

Processing Controls

Brightness	Contrast
Hue	Color Saturation
Sharpness	

Video Processing

10 bit, all digital

Genlock

NTSC/PAL black burst or HD tri-level sync

3G/HD resolutions will genlock to NTSC/PAL black burst at the same vertical rate

H, V and Clock phasing with a range of one output vertical period and resolution of 840 ps

Image Size & Positioning

Separate H & V positioning

Zoom and Shrink; H & V or together

Control Interfaces

RS-232 & 10/100 Base-T ethernet LAN port with internal HTML host

Front panel push button

Field upgradeable via Ethernet

Additional Features

Variable flicker reduction

Test pattern generator: color bars at 100% and 75% Saturation

Multiple preset storage and recall settings through remote control interfaces or front panel

On Screen Display (OSD) & LED

Factory defaults reset

Rack mount kit included

RoHS compliant

Dimensions

16.75 W (without rackmount ears) x 1.75 H x 10 D (inches)

425 W x 44 H x 254 D (mm)

Weight: 5.5 pounds; 2.49 kg

Power

Internal universal input AC power supply

95 - 250 volts AC, 47 - 63 Hz, 20 watts 68.24 BTU/Hr

Scan Do. HD

DVI or Analog RGB Computer Video to 3G/HD/SD-SDI Scan Converter







The Scan Do HD works brilliantly with our Fiberlink 3350 3G/HD/SDI Series

Ordering Information

Part Number1298-pp

Description
Scan Do® HD

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia
JP - Japan UK - United Kingdom

EU - Europe

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Deuce®

The "original" affordable video scaler creates high resolution, film-quality images from standard video sources

Ideal Applications:

Presentation, Control Room, Theaters, Stadiums, Museums





Back Panel Drawing of Deuce

Ordering Inf	ormation
Part Number	Description
2200-рр	Deuce
1119-006	6-ft. VGA extension cable
1119-025	25-ft. VGA extension cable
1119-50	50-ft. VGA extension cable
1119-100	100-ft. VGA extension cable
1143-012	12-ft. 5 x BNC to 5 x BNC
1143-025	25-ft. 5 x BNC to 5 x BNC
1143-050	50-ft. 5 x BNC to 5 x BNC
1143-100	100-ft. 5 x BNC to 5 x BNC
1206	6-ft. HD-15M to 5 x BNC cable
1207	6-ft. HD-15F to 5 x BNC cable

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia
JP - Japan UK - United Kingdom

NOTE: Deuce is available with international line cords. Please specify when ordering.

EU - Europe

Signal Capability

Signals In

NTSC, PAL, SECAM, Composite, S-Video

Signals Out

RGBHV, RGBS, RGsB: 640x480, 800x600, 1024x768, 852x480 (16:9), 832x624, 1280x1024

Features

Intelligent video scaling to six output resolutions

Selectable output vertical refresh rates of 60 Hz and 75 Hz (60 Hz only at 1280 x 1024), allowing for brightest, flicker-free image

Advanced motion compensation when de-interlacing input video eliminates unwanted artifacts

Supports 16:9 displays, "letterbox" widescreen videotapes and DVD sources

Switchable composite and S-Video inputs in NTSC, PAL and SECAM standards

Two simultaneous outputs:

- VGA compatible on HD-15 connector
- RGBHV, RGBS or RGsB on BNC connectors

Processing controls for contrast, brightness, color saturation and hue

Horizontal and vertical positioning

Non-volatile memory remembers all settings

Lockout function of front panel controls

Universal input power supply



Input Video Standards: NTSC, NTSC-Japan, PAL (B,D, G, H, I, M, N, N-3.58), SECAM

Input Types: Composite and S-Video (Y/C), both terminating in 75 Ohms

Input Connectors: Composite: BNC-F; S-Video: 4-pin mini-DIN-F

Input Formats: Normal (4:3), Letterbox (16:9)

Input Decoding: 8-bit Y, 8-bit C, and 16-bit YUV with comb filter processing

Output Types: HD-15F connector with standard VGA pin-out; 5 x BNC connectors which can be configured as RGBHV, RGBS or RGsB

Output Resolutions:

640 x 480 852 x 480 (16:9) 800 x 600 832 x 624 1024 x 768 1280 x 1024

Output Refresh Rates: 60 Hz, 75 Hz (selectable), not input locked

Equipment Included:

Deuce Intelligent Video Scaler

External universal input power supply

AC line cord

S-Video input cable

Composite video input cable with BNC/RCA adaptor

User manual

Power:

Separate universal input AC power supply.

Input: 95 volts AC to 250 volts AC, 47 to 63 Hz

Output: 5 volts DC at 3 A

UL/CSA/TUV/CE approved

Maximum specified power: 10 Watts

Dimensions:

7.25 W x 1.5 H x 8 D (inches)

184 W x 38 H x 203 D (mm)

Weight: Approx. 3 lbs, with power supply; 1.4 kg

About CSI

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Also from CSI: Fiberlink® and Scan Do® Scan Converters.





You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



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Deuce® MC

Video scaler, line doubler and line quadrupler with user-controlled, six-setting motion compensation feature

Ideal Applications:

Presentation, Education, Museums, Control Rooms





Back Panel Drawing of Deuce MC

Ordering Information

Part Number	Description
2220-pp	Deuce MC
1119-006	6-ft. VGA extension cable
1119-025	25-ft. VGA extension cable
1119-50	50-ft. VGA extension cable
1119-100	100-ft. VGA extension cable
1206	6-ft. HD-15M to 5 x BNC cable
1210	12-ft. 3 x RCA Phono cable
1240	Rackmount for one 2220 unit
1241	Rackmount for two 2220 units

NOTE: Deuce MC is available with international line cords. Please specify when ordering.

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Signal Capability

Signals In

NTSC, PAL, Composite, S-Video, Y-Cb-Cr

Signals Out

RGBHV, RGBS, Y-Cb-Cr

800x600, 852x480 (16:9), 1024x768, line double, line guadruple

Features

Intelligent video scaling to three resolutions, plus line doubling and line quadrupling

Output vertical refresh rate locked to input vertical refresh rate (59.94 Hz NTSC; 50 Hz PAL)

Six user-selectable motion compensation settings using three different algorithms, applied individually or in combination

-Static mesh

(images with little or no motion)

- -Vertical temporal (standard video)
- -Adaptive frame

(inverse 3:2 pulldown, for video originating from a film source)

Supports 16:9 "letterbox" videotape and DVD sources

Switchable composite, S-Video and Y-Cb-Cr component inputs in NTSC and PAL standards

VGA-compatible HD-15 connector provides RGBHV, RGBS or Y-Cb-Cr progressive scan output formats

RS-232 remote port for use with a media controller

Non-volatile memory stores all settings

Lockout function on front panel controls

Universal input power supply incorporated in chassis; no external power supply module

Sales



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Input Video Standards: NTSC, PAL (B, G, H, I)

Input Types: Composite, S-Video (Y/C) and component Y-Cb-Cr,

all terminating in 75 Ohms

Input Connectors: Composite: RCA-F; S-Video: 4-pin mini-DIN-F;

Component: 3 RCA-F

Input Decoding: 16-bit YUV with adaptive 4H comb filter processing

Output Types: HD-15F connector with standard VGA pin-out which can be configured as RGBHV, RGBS or Y-Cb-Cr, selectable through rear panel switch

Output Refresh Rates: (locked to input)

59.94 Hz (NTSC input) 50 Hz (PAL input)

Output Resolutions:

800 x 600, 852 x 480 (16:9), 1024 x 768, line double, line quadruple

Six user-selectable motion compensation settings using three different algorithms, applied individually or in combination

Static mesh (images with no motion)

Vertical temporal (standard video)

Adaptive frame

(inverse 3:2 pulldown, for video originating from a film source)

Remote Control: RS-232 on 3-pin "Phoenix" type connector

Equipment Included:

Deuce MC Intelligent Video Scaler

AC line cord

S-Video input cable

Composite video input cable with RCA male to RCA male

User Manual

Power:

Internal universal input AC power supply

Input: 85-265 volts AC, 47-63 Hz

UL/CSA/TUV/CE approved

Maximum specified power: 7 Watts

Dimensions:

7.25 W x 1.5 H x 8 D (inches)

184 W x 38 H x 203 D (mm)

Weight: Approx. 2 lbs; .91 kg

About CSI

Communications Specialties, Inc. (CSI) is an award-winning manufacturer of Pro A/V products for the distribution, conversion or transmission of television and computer video signals, including fiber optic transmission systems, scan converters and video scalers. The company was founded in 1983 by veterans of the broadcast industry. Since then, CSI has managed to consistently design innovative products that are used worldwide by Fortune 500 Companies in a variety of markets such as Broadcast/Professional A/V, Video Conferencing, Education, Home Theater, Security, ITS, Industrial Monitoring, and more!

Also from CSI: Fiberlink® and Scan Do® Scan Converters.





You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

Sales



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Deuce® HD

Video scaling and processing from standard TV video to five non-interlaced HDTV and DTV resolutions

Ideal Applications:

Presentation, Home Theater, Broadcast





Back Panel Drawing of Deuce HD

Part Number	Description
2230-pp	Deuce HD
1119-006	6-ft. VGA extension cable
1119-025	25-ft. VGA extension cable
1119-50	50-ft. VGA extension cable
1119-100	100-ft. VGA extension cable
1206	6-ft. HD-15M to 5 x BNC cable
1210	12-ft. 3 x RCA Phono cable
1240	Rackmount for one 2230 unit
1241	Rackmount for two 2230 units

EU - Europe

NOTE: Deuce HD is available with international line cords. Please specify when ordering.

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia

JP - Japan UK - United Kingdom

Signal Capability

Signals In

NTSC, PAL, Composite, S-Video, Y-Cb-Cr

Signals Out

RGBHV, RGBS, Y-Cb-Cr,

480p, 720p, 1080p, 1280x1024, 1366x768

Features

Intelligent video scaling to five HDTV and DTV resolutions

Output vertical refresh rate locked to input vertical refresh rate (59.94 Hz NTSC; 50 Hz PAL)

Three aspect ratio conversions from input to output:

- -4:3 to Full Screen (4:3 or 16:9)
- -4:3 to 4:3 in 16:9 screen
- -16:9 to 16:9 (letterbox to full 16:9 screen)

Auto detects and applies best motion compensation algorithm, including inverse 3:2 pulldown (Adaptive Frame Mode)

Supports 16:9 "letterbox" videotape and DVD sources

Switchable composite, S-Video and Y-Cb-Cr, component inputs in NTSC and PAL standards

VGA-compatible HD-15 connector provides RGBHV, RGBS or Y-Cb-Cr progressive scan output formats

RS-232 remote port for use with a media controller

Non-volatile memory remembers all settings

Lockout function on front panel controls

Universal input power supply incorporated in chassis; no external power supply module



Input Video Standards: NTSC, PAL (B, G, H, I)

Input Types: Composite, S-Video (Y/C) and component Y-Cb-Cr,

all terminating in 75 Ohms

Input Connectors: Composite: RCA-F; S-Video: 4-pin mini-DIN-F;

Component: 3 RCA-F

Input Decoding: 16-bit YUV with adaptive 4H comb filter processing

Output Types: HD-15F connector with standard VGA pin-out which can be configured as RGBHV, RGBS or Y-Cb-Cr, selectable through rear panel switch

Output Refresh Rates: (locked to input)

59.94 Hz (NTSC input)

50 Hz (PAL input)

Output Resolutions:

480p, 720p, 1080p, 1280 x 1024, 1366 x 768

Aspect Ratio Conversion:

4:3 to full screen (either 4:3 or 16:9)

4:3 to 4:3 in 16:9 screen

16:9 to 16:9 (letterbox to full screen)

Auto detect and apply motion compensation, selecting from three algorithms

Static mesh (images with no motion) Vertical temporal (standard video)

Adaptive frame (inverse 3:2 pulldown, for video originating

from a film source)

Remote Control: RS-232 on 3-pin "Phoenix" type connector

Equipment Included:

Deuce HD Intelligent Video Scaler

AC line cord

S-Video input cable

Composite video input cable with RCA male to RCA male

User Manua

Power:

Internal universal input AC power supply

Input: 85-265 volts AC, 47-63 Hz

UL/CSA/TUV/CE approved

Maximum specified power: 7 Watts

Dimensions:

7.25 W x 1.5 H x 8 D (inches)

184 W x 38 H x 203 D (mm)

Weight: Approx. 2 lbs; .91 kg





You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

Sales



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Deuce® SDQ

Versatile scaler, line doubler and line quadrupler offers quality performance at a very affordable price

Ideal Applications:

Presentation, Education, Museums





Back Panel Drawing of Deuce SDQ

Ordering Information	
Part Number	Description
2240-pp	Deuce SDQ
1119-006	6-ft. VGA extension cable
1119-025	25-ft. VGA extension cable
1119-50	50-ft. VGA extension cable
1119-100	100-ft. VGA extension cable
1206	6-ft. HD-15M to 5 x BNC cable
1210	12-ft. 3 x RCA Phono cable
1240	Rackmount for one 2240 unit
1241	Rackmount for two 2240 units

NOTE: Deuce SDQ is available with international line cords. Please specify when ordering.

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe

JP - Japan UK - United Kingdom

Signal Capability

Signals In

NTSC, PAL, Composite, S-Video, Y-Cb-Cr

Signals Out

RGBHV, RGBS, Y-Cb-Cr

800x600, 1024x768, 1280x1024, line double, line quadruple

Features

Intelligent video scaling to three resolutions, plus line doubling and line quadrupling

Output vertical refresh rate locked to input vertical refresh rate (59.94 Hz NTSC; 50 Hz PAL)

Auto detects and applies best motion compensation algorithm, including inverse 3:2 pulldown (Adaptive Frame Mode)

Supports 16:9 "letterbox" videotape and DVD sources

Switchable composite, S-Video and Y-Cb-Cr component inputs in NTSC and PAL standards

VGA-compatible HD-15 connector provides RGBHV, RGBS or Y-Cb-Cr progressive scan output formats

RS-232 remote port for use with a media controller

Non-volatile memory remembers all settings

Lockout function on front panel controls

Universal input power supply incorporated in chassis



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Input Video Standards: NTSC, PAL (B, G, H, I)

Input Types: Composite, S-Video (Y/C) and component YCbCr,

all terminating in 75 Ohms

Input Connectors: Composite: RCA-F; S-Video: 4-pin mini-DIN-F;

Component: 3 RCA-F

Input Decoding: 16-bit YUV with adaptive 4H comb filter processing

Output Types: HD-15F connector with standard VGA pin-out which can be configured as RGBHV, RGBS or YCbCr, selectable through rear panel switch

Output Refresh Rates: (locked to input)

59.94 Hz (NTSC input) 50 Hz (PAL input)

Output Resolutions:

800 x 600, 1024 x 768, 1280 x 1024, line double, line quadruple

Auto detect and apply motion compensation, selecting from three algorithms Static mesh (images with little or no motion)

Vertical temporal (standard video)

Adaptive frame (inverse 3:2 pulldown, for video originating

from a film source)

Remote Control: RS-232 on 3-pin "Phoenix" type connector

Equipment Included:

Deuce SDQ Intelligent Video Scaler

AC line cord

S-Video input cable

Composite video input cable with RCA male to RCA male

User Manual

Power:

Internal universal input AC power supply

Input: 85-265 volts AC, 47-63 Hz

UL/CSA/TUV/CE approved

Maximum specified power: 7 Watts

Dimensions:

7.25 W x 1.5 H x 8 D (inches)

184 W x 38 H x 203 D (mm)

Weight: Approx. 2 lbs; .91 kg

About CSI

Communications Specialties, Inc. (CSI) is an award-winning manufacturer of Pro A/V products for the distribution, conversion or transmission of television and computer video signals, including fiber optic transmission systems, scan converters and video scalers. The company was founded in 1983 by veterans of the broadcast industry. Since then, CSI has managed to consistently design innovative products that are used worldwide by Fortune 500 Companies in a variety of markets such as Broadcast/Professional A/V, Video Conferencing, Education, Home Theater, Security, ITS, Industrial Monitoring, and more!





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Sales



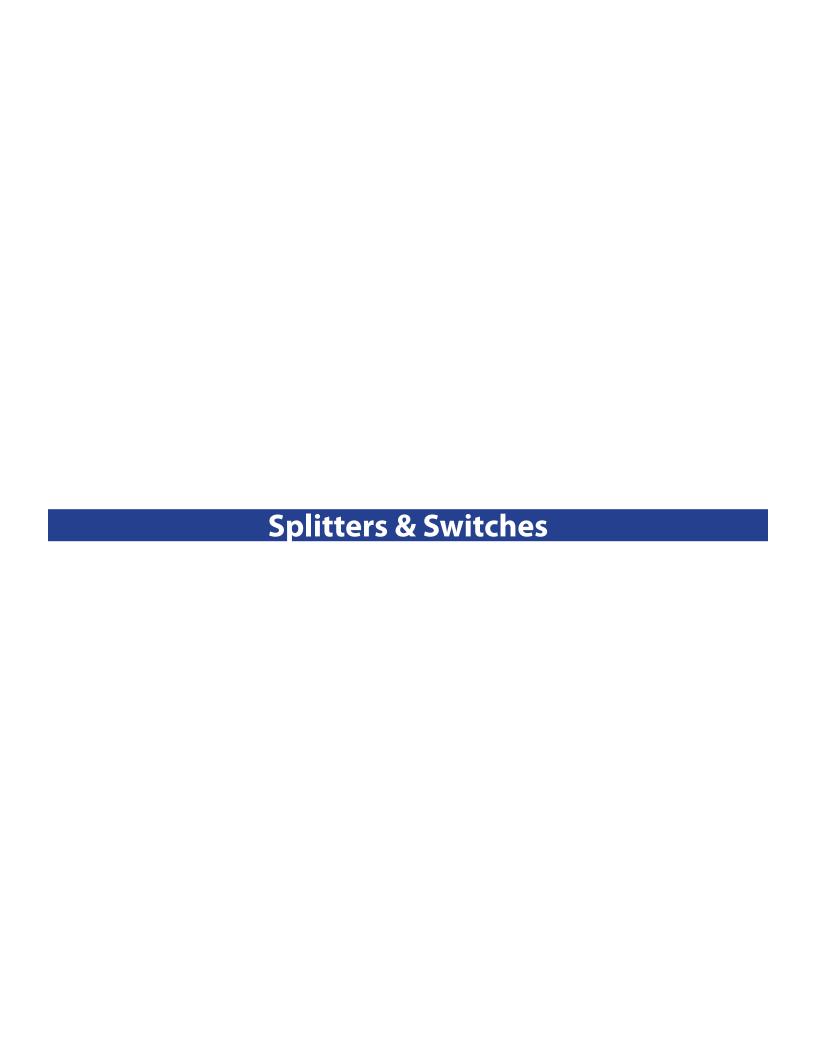
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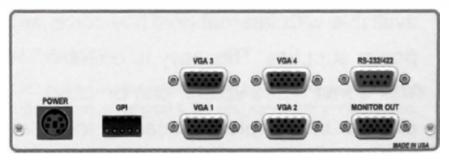
Quadswitch™ for VGA

High-performance 4x1 active switch with fully buffered inputs and output and advanced sync processing

Ideal Applications:

Presentation, Education, Contol Room, Court Room





Back Panel Drawing of QuadSwitch $^{\rm TM}$ for VGA (1340)

Description 340-pp QuadSwitch™ for VGA 244 Single rackmount kit for one 1340 unit Double rackmount kit for two 1340 units
Single rackmount kit for one 1340 unit
Double rackmount kit for two 1340 units
119-006 6-ft. extention cable w/HD-15 M/F termination
119-010 10-ft. extention cable w/HD-15 M/F termination
119-025 25-ft. extention cable w/HD-15 M/F termination
119-050 50-ft. extention cable w/HD-15 M/F termination
119-100 100-ft. extention cable w/HD-15 M/F termination
CAB-19 raw extension cable cut to custom length. Call for details.

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia
JP - Japan UK - United Kingdom

EU - Europe

Part#	Name	# Inputs
1340	Quadswitch™	4

Features

Switch one of four VGA computer sources to one output

Can drive any type of monitor, flat panel, projector or display that is VGA compatible

300 MHz bandwidth

Fully buffered inputs and output

All electronic switching; no relays

Sync outputs capable of driving 75 Ohm loads

Advanced sync processing, with the ability to support other types of RGB signals (such as sync-on-green) using adaptor cables

Easy-to-use front panel push buttons for selection of inputs

Two remote control options: RS-232/422 serial port and/or one-to-one contact closure to ground

Designed for easy rackmounting

Unit comes with UL/CSA/CE approved power supply. Input and output cables must be purchased separately



Input Type: VGA compatible, RGBHV

(any RGB system may be used with appropriate adaptors)

Input Impedance: RGB - 75 Ohms H & V - high impedance

Input/Output Connectors: HD-15F

RGB Bandwidth: 300 MHz (-3 dB)

RS-232/422 Connector: DB-9F

Contact Closure Connector: 5-pin (mating connector provided)

Power connector is 5-pin mini-DIN-F

Equipment Included:

QuadSwitch for VGA unit

UL/CSA/CE approved power supply (230 Volts AC/50 Hz TUV/CE approved tabletop supply is also available)

User's manual

Dimensions:

QuadSwitch: 7.25 W x 2.5 H x 3.25 D (inches); 184 W x 64 H x 83 D (mm)

Weight: Approximately 3 lbs.; 1.4 kg

Power:

100 Volts AC to 240 Volts AC to 240 volts AC, 47-67 Hz, tabletop

UL/CSA/TUV/CE approved

GSA Schedule CE FC

You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.

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Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



Splitters for VGA

Fully-buffered distribution amplifiers for VGA, available in five models offering two to ten outputs

Ideal Applications:

Digital Signage, Remote Monitoring, Corporate, Manufacturing, Inspection, Education, Control Room, Court Room

Part#	Name	# Outputs
1302	Twinsplit®	2
1304		4
1306	Hexisplit®	6
1308	Octosplit®	8
1310	Decisplit®	10
1306 1308	Quadsplit® Hexisplit® Octosplit®	6 8





Back Panel Drawing of TwinSplit for VGA (1302)

Ordering Information		
Part Number	Description	
1302-pp	TwinSplit® for VGA	
1304-pp	QuadSplit® for VGA	
1306-pp	HexiSplit® for VGA	
1308-pp	OctoSplit® for VGA	
1310-pp	DeciSplit® for VGA	
1240	Single rackmount kit for one 1302 unit	
1241	Double rackmount kit for two 1302 units	
1244	Single rackmount kit for one 1304, 1306, 1308 or 1310 unit	
1245	Double rackmount kit for two 1304, 1306, 1308 or 1310 units	
1119-006	6-ft. extention cable w/HD-15 M/F termination	
1119-010	10 10-ft. extention cable w/HD-15 M/F termination	
1119-025	25-ft. extention cable w/HD-15 M/F termination	
1119-050	50-ft. extention cable w/HD-15 M/F termination	
1119-100	100-ft. extention cable w/HD-15 M/F termination	
1119	CAB-19 raw extension cable cut to custom length. Call for details.	

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia JP - Japan

UK - United Kingdom

EU - Europe

Connect multiple VGA monitors to a single VGA source

Supports all VGA, SVGA, XGA, SXGA and UXGA resolutions up to 1600 x 1280

Operates at distances up to 250 feet

300 MHz bandwidth

Compatible with newer Apple video interfaces, including: iMAC, Power MAC G4 Cube, Power MAC G4. Macintosh Server G4. iBook and Titanium Powerbook G4

Compact, all metal casing

Input and output connectors located on rear

Designed for easy rackmounting

Unit comes with UL/CSA/CE approved power supply and one 6-ft. input cable. Output cables must be purchased separately



All input and output connectors are HD-15F

All sync outputs can drive either TTL loads or be terminated in 75 Ohms

RGB outputs drive standard 75 Ohm loads

Power connector is 5-pin mini-DIN-F

Monitor type switch is used to set the monitor ID bits for the VGA card

Equipment included:

VGA Splitter unit

UL/CSA/CE approved power supply 230 Volts AC/50 Hz TUV/CE approved (tabletop supply is also available)

6ft. HD-15M to HD-15 M input cable to connect from VGA output

User's manual

Dimensions:

TwinSplit: 7.25 W x 1.5 H x 3.25 D (inches); 184 W x 38 H x 83 D (mm)

QuadSplit: 7.25 W x 2.5 H x 3.25 D (inches); 184 W x 64 H x 83 D (mm)

HexiSplit: 7.25 W x 2.5 H x 3.25 D (inches); 184 W x 64 H x 83 D (mm)

OctoSplit: 7.25 W x 2.5 H x 3.25 D (inches); 184 W x 64 H x 83 D (mm)

DeciSplit: 7.25 W x 2.5 H x 3.25 D (inches); 184 W x 64 H x 83 D (mm)

Weight: TwinSplit: approx. 3 lbs. (1.4 kg.); All others: approx. 3.5 lbs. (1.6 kg)

Power

TwinSplit and QuadSplit: 120 Volts AC, 60 Hz wall plug-in power supply or 230 Volts AC, 50 Hz tabletop

HexiSplit, OctoSplit and DeciSplit: 100 Volts AC to 240 Volts AC, 47-63 Hz universal input tabletop supply

UL/CSA/TUV/CE approved

About CSI

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Also from CSI: Fiberlink®, Scan Do® Scan Converters & Deuce Video Scalers



You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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Splitter for Composite Video

Fully-buffered six output distribution amplifier supports composite video signals in NTSC and PAL formats

Ideal Applications:

Professional Video, Remote Monitoring, Security, Education, Court Room, Control Room

Part#	Name	# Outputs
1706	Hexisplit®	6





Back Panel Drawing of HexiSplit® for Video (1706)

Description
HexiSplit® for Video
Single rackmount kit for one 1706 unit
Double rackmount kit for two 1706 units
6-ft. extention cable w/2 x BNC-M termination
12-ft. extention cable w/2 x BNC-M termination
25-ft. extention cable w/2 x BNC-M termination
50-ft. extension cable w/2 x BNC-M termination
CAB-59 raw extension cable cut to custom length. Call for details.

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

Features

Connect multiple video monitors to a single composite video source

Supports NTSC and PAL formats

Operates at distances up to 250 feet

300 MHz bandwidth

< 1 ns rise time

Compact, all metal casing

Input and output connectors located on rear

Designed for easy rackmounting

Unit comes with UL/CSA/CE approved power supply. Input and output cables must be purchased separately



info@commspecial.com

All input and output connectors are BNCs

Outputs drive standard 75 Ohm loads

Differential gain: < 0.1%

Differential phase: <0.1 degree

Power conector is 5-pin mini-DIN-F

Equipment included:

Video Splitter unit

UL/CSA/CE approved power supply 230 Volts AC/50 Hz TUV/CE approved tabletop supply is also available)

User's manual

Dimensions:

HexiSplit: 7.25 W x 1.5 H x 3.25 D (inches); 184 W x 38 H x 83 D (mm)

Weight: Each unit weights approx. 3 lbs. with power supply (1.35 kg)

Power

120 Volts AC, 60 Hz wall plug-in power supply or 230 Volts AC, 50 Hz tabletop

UL/CSA/TUV/CE approved

About CSI

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The **Fiberlink®** line offers an extensive and affordable family of fiber optic transmission systems for the Professional A/V marketplace and includes several ground-breaking products for the transmission of high-resolution RGB signals. Systems for point-to-point and point-to-multipoint signal distribution make these products highly desirable for any Pro A/V architecture. New products are constantly being designed and developed and you can get the latest information at commspecial.com

Our award-winning product line, the **Scan Do**® family of computer to video scan converters, has redefined industry standards in computer video to NTSC/PAL technology with unsurpassed performance in its price range. All models support high resolutions and refresh rates and are VGA and Mac® compatible. The feature-rich and versatile Scan Do family offers the widest range of scan converters on the market.

Also from CSI: Fiberlink®, Scan Do® Scan Converters & Deuce Video Scalers



You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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Splitters for S-Video

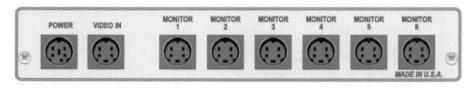
Fully-buffered two and six output distribution amplifiers support S-Video signals in NTSC and PAL formats

Ideal Applications:

Home Theatre, Presentation, Court Rooms, Medical

Part#	Name	# Outputs
1802	Twinsplit®	2
1806	Hexisplit®	6





Back Panel Drawing of HexiSplit® for S-Video (1806)

Ordorina	Information
Ordering	iniormation

Part Number	Description
1802-pp	TwinSplit® for S-Video
1806-pp	HexiSplit® for S-Video
1240	Single rackmount kit for one 1806 unit
1241	Double rackmount kit for two 1806 units
1250	Single rackmount kit for one 1802 unit
1251	Double rackmount kit for two 1802 units
1130-006	6-ft. extention cable w/2 x 4-pin mini-DIN-M termination
1130-012	10-ft. extention cable w/2 x 4-pin mini-DIN-M termination
1130-025	25-ft. extention cable w/2 x 4-pin mini-DIN-M termination
1130-050	50-ft. extention cable w/2 x 4-pin mini-DIN-M termination
1130	CAB-30 raw extension cable cut to custom length. Call for details.

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia
JP - Japan UK - United Kingdom

EU - Europe

Features

Connect multiple S-Video monitors to a single S-Video source

Supports NTSC and PAL formats

Operates at distances up to 250 feet

300 MHz bandwidth

< 1 ns rise time

Compact, all metal casing

Input and output connectors located on rear

Designed for easy rackmounting

Unit comes with UL/CSA/CE approved power supply. Input and output cables must be purchased separately



All input and output connectors are 4-pin mini-DIN-F

Outputs drive standard 75 Ohm loads

Differential gain: < 0.1%

Differential phase: <0.1°

Power conector is 5-pin mini-DIN-F

Equipment included:

S-Video Splitter unit

UL/CSA/CE approved power supply 230 Volts AC/50 Hz TUV/CE approved tabletop supply is also available)

User's manual

Dimensions:

TwinSplit: 4.25 W x 1.5 H x 3.25 D (inches); 108 W x 38 H x 83 D (mm)

HexiSplit: 7.25 W x 1.5 H x 3.25 D (inches); 184 W x 38 H x 83 D (mm)

Weight: Each unit weights approx. 3 lbs. with power supply (1.35 kg)

Power

120 Volts AC, 60 Hz wall plug-in power supply or 230 Volts AC, 50 Hz tabletop

UL/CSA/TUV/CE approved

About CSI

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Our award-winning product line, the **Scan Do®** family of computer to video scan converters, has redefined industry standards in computer video to NTSC/PAL technology with unsurpassed performance in its price range. All models support high resolutions and refresh rates and are VGA and Mac® compatible. The feature-rich and versatile Scan Do family offers the widest range of scan converters on the market.

Also from CSI: Fiberlink®, Scan Do® Scan Converters & Deuce Video Scalers



You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



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Splitters for RGB

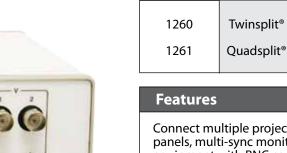
Fully-buffered two and four output distribution amplifiers for RGB and YUV signals



Ideal Applications:

Part#

Presentations, Education, Command and Control Centers, Simulation, Medical



Connect multiple projectors, LCD panels, multi-sync monitors and any equipment with BNC connectors to a single RGB or YUV source

Name

Outputs

2

4

Sync support for composite sync (CS), separate H & V, sync-on-green/Y and sync-on-all

Supports resolutions up to 1600 x 1280

300 MHz bandwidth

Operates at distances up to 250 feet

Compact, all metal casing

Designed for easy rackmounting

Unit comes with UL/CSA/CE approved power supply. Input and output cables must be purchased separately



Back Panel of QuadSplit for RGB (1261)

Part Number Description 1260-pp TwinSplit® for RGB QuadSplit® for RGB 1261-pp 1244 Single rackmount kit for one 1260 or 1261 unit 1245 Double rackmount kit for two 1260 or 1261 units 1143-012 12-ft. extention cable w/10 x BNC-M termination 25-ft. extention cable w/10 x BNC-M termination 1143-025 1143-050 50-ft. extention cable w/10 x BNC-M termination 1143-100 100-ft. extention cable w/10 x BNC-M termination CAB-43 raw extension cable cut to custom length. 1143

NOTE: Please specify type of power supply when ordering.

Ordering Information

Power Supply Suffix Codes (pp) for AC Line Cord:

Call for details.

NA - North America AU - Australia EU - Europe

JP - Japan UK - United Kingdom

CS Communications Specialties, Inc.
631-273-0404 | commspecial.com info@commspecial.com

All input and output connectors are BNC connectors

All sync outputs can drive either TTL loads or be terminated in 75 Ohms

RGB outputs drive standard 75 Ohm loads

Sync support: composite (CS), separate H&V, sync-on-green, sync-on-all

Sync input level: 1 Vp-p to 5 Vp-p

Power connector is 2.5 MM phone plug, center positive

Monitor type switch is used to set the monitor sync type used by workstation

Equipment Included:

RGB Splitter unit

UL/CSA/CE approved power supply (230 Volts AC/50 Hz TUV/CE approved tabletop supply is also available)

User's manual

Dimensions:

TwinSplit 7.25 W x 2.5 H x 6.25 D (inches); 184 W x 64 H x 159 D (mm)

QuadSplit: 7.25 W x 2.5 H x 6.25 D (inches); 184 W x 64 H x 159 D (mm)

Both models weigh approximately 1 lb; 0.45 kg

Power:

 $110\,\mbox{Volts}$ AC to $120\,\mbox{Volts}$ AC wall plug-in power supply or 220 Volts AC to 240 Volts AC tabletop

UL/CSA/TUV/CE approved

About CSI

Communications Specialties, Inc. (CSI) is an award-winning manufacturer of Pro A/V products for the distribution, conversion or transmission of television and computer video signals, including fiber optic transmission systems, scan converters and video scalers. The company was founded in 1983 by veterans of the broadcast industry. Since then, CSI has managed to consistently design innovative products that are used worldwide by Fortune 500 Companies in a variety of markets such as Broadcast/Professional A/V, Video Conferencing, Education, Home Theater, Security, ITS, Industrial Monitoring, and more!

Also from CSI: Fiberlink®, Scan Do® Scan Converters & Deuce Video Scalers



You can learn more about fiber optic transmission, scan conversion, video scaling and more online at commspecial.com



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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TwinSplit® E.D.

"Extended Distance" VGA splitter distributes two buffered outputs to distances of up to 700 feet

Signal	Channel	Direction
VGA	1 (2 outputs)	→



Back Panel Drawing of TwinSplit E.D.

Features

Distributes computer video from a single PC to two monitors located at remote distances. Maximum distance supported varies by computer resolution:

640 x 480: 700 feet maximum 800 x 600: 600 feet maximum 1024 x 768: 500 feet maximum

Two independent outputs, each with adjustments to correspond to cable length

Equalization parameters set automatically

Support for local loop-through monitor

Unit comes with UL/CSA/CE approved power supply and one 6-ft. input cable. Output cables must be purchased separately

Compatible with VGA splitter models 1302, 1304, 1306, 1308 and 1310

Optional rackmount kits are available

Part Number	Description
1067	TwinSplit® E.D 110 volts AC/60 Hz
1067-EU	TwinSplit® E.D 230 volts AC/50 Hz
1127	CAB-27 extension cable
1198	TERM-4 termination of CAB-27 cable w/connectors
1192	CONN-3 HD-15 M/F connector kit
1240	Single rackmount kit for one unit
1241	Double rackmount kit for two units



VGA input: HD-15F

VGA outputs: HD-15F

Power input: 2.5 mm subminiature phone jack, tip positive

Maximum distances supported over CAB-27 cable

640 x 480: 700 feet 800 x 600: 600 feet 1024 x 768: 500 feet

Equipment Included:

TwinSplit E.D.

Wall transformer power supply

6-ft. HD-15M to HD-15M cable for computer's VGA output to the input of TwinSplit E.D.

User manual

Dimensions:

Size: 7.25 W x 1.5 H x 6.25 D (inches); 184 W x 38 H x 159 D (mm))

Weight: Approximately 1 lb. (0.45 kg)

Power:

110 - 120 volts AC input wall transformer is provided

Output is rated at 9 volts DC @ 500 mA

UL/CSA approved

230 volts AC/50Hz input TUV tabletop version is available

Interconnecting Cable

Extenson cables providing an HD-15 connector on each end are available in custom lengths. The CAB-27 cable contains four 75 Ohm coax cables and additional wires in one shielded jacket. This cable may be ordered with a variety of termination options.

About CSI

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6202 Fiber Optic Termination Kit

Easily terminates fiber cable with no grinding, polishing, glues or epoxies



Information
Fiber Optic Termination Kit
ST connector for 62.5 micron multimode fiber
FCPC connector for 62.5 micron multimode fiber
ST connector for 50 micron multimode fiber
SC connector for 62.5 micron multimode fiber
FCPC connector for single mode fiber
ST connector for single mode fiber

Features

Allows for easy and foolproof termination of ST and FCPC connectors on both multimode and single mode fibers

Uses Corning UniCam connector and termination system. Connectors must be purchased separately

Requires no grinding, epoxies or polishing

Provides consistently reliable high-performance terminations

Terminations can be completed in minutes, even without previous experience terminating fiber

All tools and adapters are provided

Visible light source (included) ensures precise terminations

Terminations may be used immediately

Ideal for both field and shop use

Lightweight and portable

Kit Includes

All tools for preparing both jacketed and unjacketed fiber

Fiber cleaver and termination jig

Visible laser light source

Portable carrying case

Instruction manual

Corning produced training video tape (NTSC)

See a photo demonstration of fiber termination at: fiber-ed.com/res-fiber_term.htm





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Fiber Cables and Connectors

Cables and connectors are available for use with any Fiberlink® products



Fiber Cable Common Specifications

Single (simplex) and Dual (duplex) core Single mode & Multimode fiber 8/10 micron, 50 micron & 62.5 micron PVC and Plenum Cables may be ordered raw or preterminated

Operating Temperature: -20° to +70° C

Pull Load (Newtons)

Install/Operate: 400/100

Bend Radius (cm)

Install/Operate: 6.0/3.0 Buffer Dia. (micron): 900

Outer Diameter (O.D.) (mm): Simplex: 2.9

Duplex: 2.9 x 5.8

Multimode Simplex Fiber Optic Cable						
Description	Part #	Numerical Aperture	M 850nm	lax —— Attei 1310nm	nuation —— <i>Typi</i> 850nm	c al 1310nm
50 micron, PVC	6151	0.2	3.5	1.5	3.0	1.0
50 micron, Plenum	6171	0.2	3.5	1.5	3.0	1.0
Termination - 50 micron, 2 x ST connectors	6255					
62.5 micron PVC	6101	0.275	3.75	1.5	3.0	1.0
62.5 micron, Plenum	6111	0.275	3.75	1.5	3.0	1.0
Termination - 62.5 micron, 2 x ST connectors	6215					

Multimode Duplex Fiber Optic Cable						
Description	Part #	Numerical Aperture	M 850nm	lax —— Atteni 1310nm	uation —— <i>Typ</i> i 850nm	i cal 1310nm
50 micron, PVC	6152	0.2	3.5	1.5	3.0	1.0
50 micron, Plenum	6172	0.2	3.5	1.5	3.0	1.0
Termination - 50 micron, 4 x ST connectors	6256					
62.5 micron, PVC	6102	0.275	3.75	1.5	3.0	1.0
62.5 micron, Plenum	6112	0.275	3.75	1.5	3.0	1.0
Termination - 62.5 micron, 4 x ST connectors	6216					

		Numerical	М	ax — Atteni	uation —— <i>Typi</i>	cal
Description	Part #	Aperture	1310nm	1550nm	1310nm	1550nm
8/10 micron, PVC	6121	0.14	1.0	0.75	0.5	0.4
8/10 micron, Plenum	6131	0.14	1.0	0.75	0.5	0.4
Termination - 8/10 micron, 2 x FCPC	6225					

Single Mode Duplex Fiber Optic Cable						
Description	Part #	Numerical Aperture	M 1310nm	ax ——— Atten 1550nm	uation —— Typical 1310nm 1550	nm
8/10 micron, PVC	6122	0.14	1.0	0.75	0.5 0.4	4
8/10 micron, Plenum	6132	0.14	1.0	0.75	0.5 0.4	4
Termination - 8/10 micron, 4 x FCPC	6226					

Connector Specifications For use with 6202 Terminating Kit



Ordering Information	
Description	Part #
Fiber Optic Tool Kit for field termination of MM and SM fiber. May be used with LC, ST or FCPC connectors, listed below.	6202
ST Multimode Connector for 62.5 micron fiber	6210
FCPC Multimode Connector for 62.5 micron fiber	6211
ST Multimode Connector for 50 micron fiber	6212
SC Multimode Connector for 62.5 micron fiber	6213
LC Multimode Connectors for 62.5 micron fiber	6214
LC Multimode Connectors for 50 micron fiber	6217
FCPC Single Mode Connector	6220
ST Single Mode Connector	6221
LC Single Mode Connector	6222

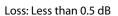
Adaptor Specifications



Ordering Information

Description	Part #
ST (M) to SMA (F) for 62.5 micron Multimode fiber	6300
ST (M) to SC (F) for 62.5 micron Multimode fiber	6330
ST (M) to FCPC (F) for 62.5 micron Multimode fiber	6340
ST (M) to LC (F) for 62.5 micron Multimode fiber	6341
ST (M) to LC (F) for 50 micron Multimode fiber	6342
ST (F) to LC (M) for 62.5 micron Multimode fiber	6343
ST (F) to LC (M) for 50 micron Multimode fiber	6344
ST (F) to FCPC (M) for Single Mode fiber	6310
ST (M) to FCPC (F) for Single Mode fiber	6350
ST (M) to SC (F) for Single Mode fiber	6360
ST (M) to LC (F) for Single Mode fiber	6361
ST (F) to LC (M) for Single Mode fiber	6362

Butt Splice Specifications



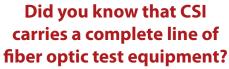




Ordering Information

Description	Part #
ST/ST Butt Splice	6320
FCPC/FCPC Butt Splice	6321
LC/LC Butt Splice	6322







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Sales



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Video Rackmounts and Cables

Rackmount kits and cables are available for use with all CSI video products. Cables may be ordered raw or preterminated.



Rackmount Description:

Sturdy single and double rackmount kits make it easy to mount Scan Do, Deuce, Splitter and Switcher units in standard 19-inch equipment racks.

Part Numbers for Single and Double Unit Rackmount Kits:

	Single	Double
Scan Do® Select	1240	1241
Scan Do® Pro II	1246	1247
Scan Do® Pro II/D	1246	1247
Deuce® MC	1240	1241
Deuce® HD	1240	1241
Deuce® SDQ	1240	1241
TwinSplit® VGA	1240	1241
QuadSplit® VGA	1244	1245
HexiSplit® VGA	1244	1245
OctoSplit® VGA	1244	1245
DeciSplit® VGA	1244	1245
QuadSwitch™VGA	1244	1245
TwinSplit® RGB	1244	1245
QuadSplit® RGB	1244	1245
TwinSplit® S-Video	1250	1251
HexiSplit® S-Video	1240	1241
TwinSplit® E.D.	1240	1241
HexiSplit® Video	1240	1241

CAB-19 Ordering Information:

Part Number	Description
1119-006	6-ft extension cable with HD-15 M/F termination
1119-010	10-ft extension cable with HD-15 M/F termination
1119-025	25-ft extension cable with HD-15 M/F termination
1119-050	50-ft extension cable with HD-15 M/F termination
1119-100	100-ft extension cable with HD-15 M/F termination
1119	CAB-19 raw, for use with terminations and connector kit
1197	TERM-3 HD-15 M/F pre-attached to cable
1192	CONN-3 HD-15 M/F connector set
1176	HD-15 M/M gender Changer for connecting two cables together

CAB-19 Specifications:

For Use With: TwinSplit® for VGA, OctoSplit® for VGA, QuadSplit® for VGA, DeciSplit® for VGA, HexiSplit® for VGA, QuadSwitch™ for VGA

Cabling: Three coaxial cables, three single wires, and fibrillated polypropylene fillers twisted together

Outer Diameter: 0.300 inches nominal

Shield: Aluminum/polyester tape, aluminum facing in, 24% overlap

Electrical Characteristics: Coaxial impedance: 75 Ohm; Capacitance: 18.6 pF/ft nominal

Sales



Contact us today!

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CAB-30 Specifications:	CAB-30 Ordering Information:	
For Use With: TwinSplit for S-Video,	Part Number Description	
HexiSplit for S-Video	1130-006	6-ft. extension cable w/2 x 4-pin mini-DIN-M preattached to cable
Cabling: Two mini-coaxial cables	1130-012	12-ft. extension cable w/2 x 4-pin mini-DIN-M preattached to cable
Outer Diameter: 0.232 inches nominal	1130-025	25-ft. extension cable w/2 x 4-pin mini-DIN-M preattached to cable
	1130-050	50-ft. extension cable w/2 x 4-pin mini-DIN-M preattached to cable
	1130	CAB-30, raw, for use with terminations
	1164	TERM-9; 2 x 4-pin mini-DIN-M preattached to cable
	1178	S-Video F/F Gender Changer for connecting two cables together

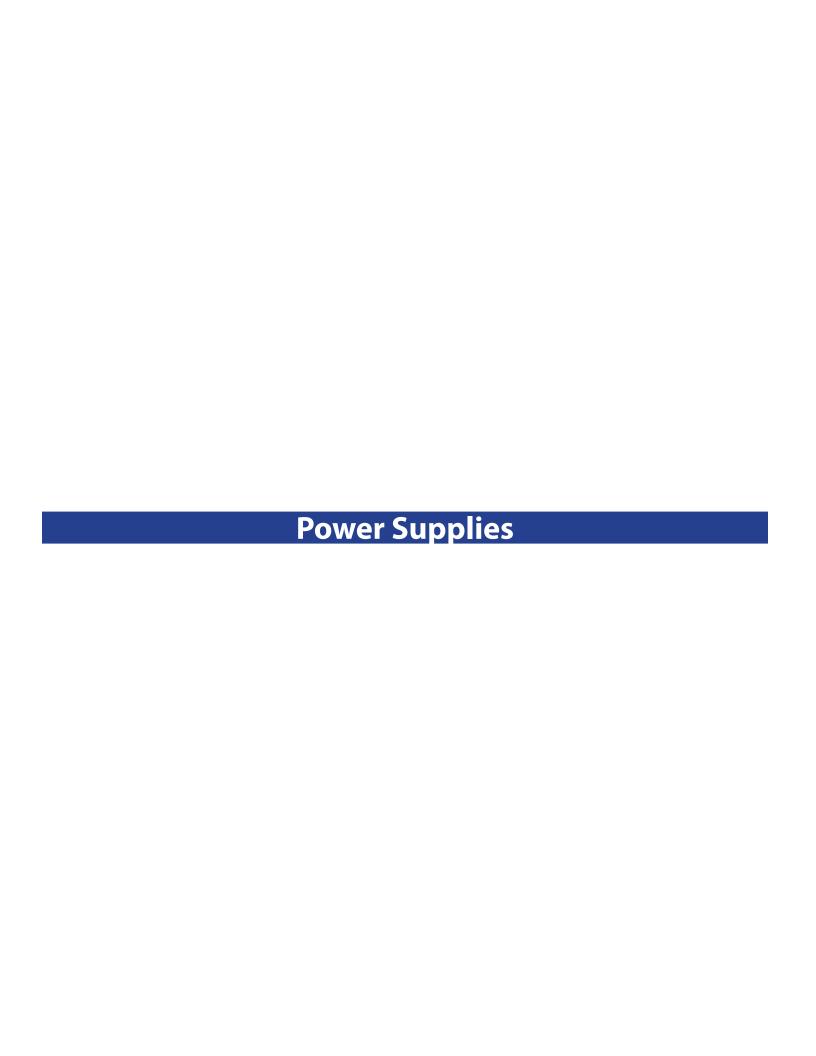
CAB-43 Specifications:	CAB-43 Ordering Information:	
For Use With: TwinSplit for RGB	Part Number	Description
QuadSplit for RGB	1143-012	12-ft. extension cable w/10 BNC-M termination
Cabling: Five coaxial cables	1143-025	25-ft. extension cable w/10 BNC-M termination
Outer Diameter: 0.365 inches nominal	1143-050	50-ft. extension cable w/10 BNC-M termination
Shield: 100% spiral tinned copper shield	1143-100	100-ft. extension cable w/10 BNC-M termination
Electrical Characteristics: coaxial impedance: 75 Ohms; Capacitance: 18.6 pF/ft nominal	1143	CAB-43, raw, for use with terminations
	1143PL	CAB-43, Planum-rated, for use with terminations
	1167	TERM-6, 10 x BNC-M pre-attached to cable
	1166	TERM-8, 8 x BNC-M, pre-attached to cable

CAB-59 Specifications:	CAB-59 Ordering Information:	
For Use With: HexiSplit for Video	Part Number	Description
Cabling: Single coaxial cable	1159-006	6-ft. extension cable w/2 x BNC-M termination
Outer Diameter: 0.242 inches nominal	1159-012	12-ft. extension cable w/2 x BNC-M termination
Electrical Characteristics:	1159-025	25-ft. extension cable w/2 x BNC-M termination
Coaxial impedance: 75 Ohms	1159-050	50-ft. extension cable w/2 x BNC-M termination
	1159	CAB-59, raw, for use with terminations
	1169	TERM-5, 2 x BNC-M preattached to cable
	1173	BNC F/F adaptor "bullet" for connectiong two cables together

CAB-27 Specifications:	CAB-27 Ordering Information:	
For Use With: TwinSplit E.D. for VGA	Part Number Description	
Cabling: Four coaxial, two single wires, and	1127	CAB-27, raw, for use with terminations and connector kits
fibrillated polypropylene fillers twisted together	1198	TERM-4, HD-15M/F preattached to cable
Outer Diameter: 0.335 inches nominal	1192 CONN-3, HD-15 M/F connector set	
Electrical Characteristics: Coaxial imped-	Note: CAB-27 is not available in standard, pre-cut lengths.	
ance: 75 Ohms; Capacitance: 18.6 pF/ft nominal		





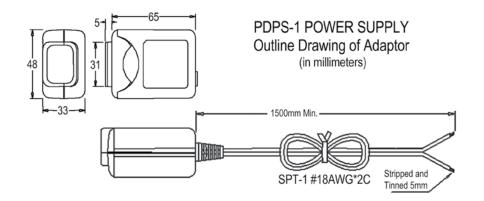




PDPS-1: Universal Power Supply

Provides power to Fiberlink box units requiring an external power adaptor





Features

One power supply is required for each box unit (transmitter, receiver or transceiver) that does not feature an internal power supply

AC line cord is included. Two letter suffix following part number indicates type

Ordering Information

Part Number Description

PDPS-1-pp Fiberlink Universal Power Supply

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe

JP - Japan UK - United Kingdom

Sales



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General Specifications	
Input Voltage/Frequency	100-250 VAC; 50/60 Hz
Input Rated Current	140 mA <u>+</u> 20% @ 220 VAC; 50/60 Hz
No Load Output Voltage	11.40 - 12.60 VDC
Output Voltage	11.40 - 12.60 VDC
Output Current (max)	Rated loading current: DC 1.0 A
Output Ripple	120 mV p-p max. @ 20 MHz bandwidth
Noise	150 mV p-p max. @ 20 MHz bandwidth
Operating Temperature Range	0 to +40° Celcius
Storage Temperature Range	-20 to +60° Celcius
Operating and Storage Humidity	20% to 90% relative humidity (non-condensing)
Vibration Test	After acceleration of 1G: 5-55 Hz, total amplitude, 1.5 mm for 1 hour. No functional or structural abnormality found
Weight	4.94 ounces ±35 ounces 140 grams ±10 grams
Dimensions	2.56 L x 1.89 W x 1.3 H (inches) 65 L x 48 W x 33 H (mm)
Over Voltage Protection	The output voltage is cut off when the output voltage is over 120%
Short Circuit Protection	Auto recovery mode; when short circuit condition is removed, output is restored
Efficiency	75% typical @ 250 VAC; 50/60 Hz
Shell	94V-0
EMI	Meets VCCI class 2; FCC class B; Cispr Class 2
Output Polarity	Wire with markings is positive (+)

About CSI

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Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



PDPS-1: Universal Power Supply



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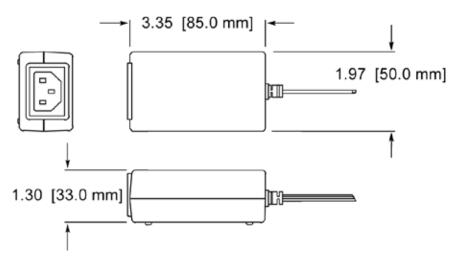
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PDPS-2: Universal Power Supply

Provides power to Fiberlink box units requiring an external power adaptor





Features

One power supply is required for each box unit (transmitter, receiver or transceiver) that does not feature an internal power supply

AC line cord is included. Two letter suffix following part number indicates type

Ordering Information

Part Number Description

PDPS-2-pp Fiberlink Universal Power Supply

Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia

JP - Japan UK - United Kingdom

EU - Europe



General Specifications	
Input Voltage/Frequency	100-250 VAC; 50/60 Hz
Input Rated Current	100 mA @ 100 VAC; 50/60 Hz
No Load Output Voltage	11.40 volts - 12.60 VDC
Output Voltage	11.40 volts - 12.60 VDC
Output Current (max)	Rated loading current: DC 1.5 A
Output Ripple	120 mV p-p max. @ 20 MHz bandwidth
Noise	150 mV p-p max. @ 20 MHz bandwidth
Operating Temperature Range	0 to +40° Celcius
Storage Temperature Range	-55 to +85° Celcius
Operating and Storage Humidity	20% to 90% relative humidity (non-condensing)
Weight	12 ounces 345 grams
Dimensions	3.35 L x 1.97 W x 1.3 H (inches) 85 L x 50 W x 33 H (mm)
Over Voltage Protection	The output voltage is cut off when the output voltage is over 120%
Short Circuit Protection	Auto recovery mode; when short circuit condition is removed, output is restored
Efficiency	80% typical @ 115 VAC; 50/60 Hz
Shell	94V-0
EMI	Meets VCCI class 2; FCC class B; Cispr Class 2
Output Polarity	Wire with markings is positive (+)



PDPS-2: Universal Power Supply



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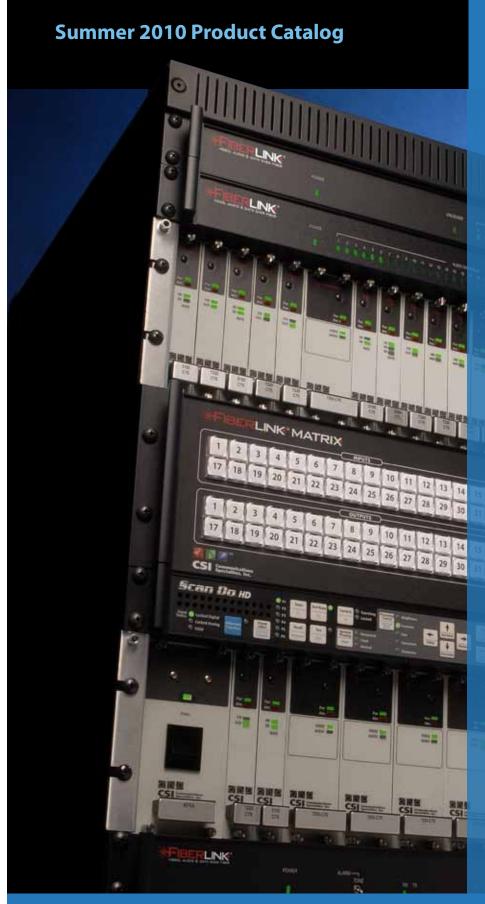
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Also from CSI: Scan Do® Scan Converters and Deuce® Video Scalers



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